

U.S. Department of Health and Human Services Public Health Service Grant Application (PHS 398)

PART I

Instructions

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FOREWORD

(4/2006 Interim Revision)

This interim revision implements a number of new and/or changing business processes:

- 1) Replacing the PI signature on the application with an Institutional compliance requirement;
- 2) Changes in measure for reporting effort devoted to a project from percent effort to person months;
- 3) Changing the requirements for including publications as appendix material;
- 4) Implementing multiple Principal Investigators for NIH grants;
- 5) Implementing specific requirements for Select Agents Research;
- 6) Modifying the requirements for Biographical Sketch; and
- 7) Harmonizing the PHS398 & SF424 (R&R) instructional text and removing data collection and instructions for those mechanisms that have transitioned to the SF424 (R&R) application and electronic submission.

NIH continues to transition applications from the PHS398 to the SF424 (R&R) and electronic submission through Grants.gov. As part of the ongoing effort to keep the PHS398 and the SF424 (R&R) synchronized, changes in terminology have been implemented throughout this document. Specifically, you will see dual references to types of applications:

- "Competing Continuation" is now termed "Renewal"
- "Revision" or "Amendment" is now termed "Resubmission"
- "Competing Supplement" is now termed "Revision"

During this transition period, both terms are being used together; i.e., "Competing Continuation/Renewal."

For more information on NIH's transition plans, see the website for Electronic Submission of

Grant Applications: http://era.nih.gov/ElectronicReceipt/.

(9/2004 Revision)

The PHS 398 instructions contain information for preparing grant applications to the National Institutes of Health (NIH) and other Public Health Service agencies for:

Public Health Service (PHS) Research Grants

Career Development Awards (K-awards)

Institutional Ruth L. Kirschstein National Research Service Awards (NRSA) (Training Grants)

The PHS 398 is required for all applications for new, revised/resubmission, competing continuation/renewal, and supplemental/revision research grant, and research training grants, changes of grantee institution, and cooperative agreement applications that have not been transitioned to the SF424 (R&R).

Please be sure to bookmark this website (http://grants.nih.gov/grants/funding/phs398/phs398.html) for future reference and for instructions on submitting justin-time Other Support information.

This edition of the PHS 398 has been extensively rewritten with special emphasis on clarity and special emphasis on simplicity and plain language. It has been reorganized into three distinct parts, each of which is available as a separate file in the MS Word and PDF versions. Principal investigators and institutions will need to use all three parts of the instructions in order to prepare a complete and acceptable application.

Part I: Instructions for Preparing the Application (MS Word) (PDF)

Part II: Supplemental Instructions for Preparing the Human Subjects Section of the Research Plan (MS Word) (PDF)

Part III: Policies, Assurances, Definitions and Other Information (MS Word) (PDF)

The three files may be opened in your browser, or may be saved locally to your hard drive. If saved locally, the three files must be saved to

the same folder/directory for the links between the files to function. (Refer to the Instructions for Downloading Documents and Electronic Forms http://grants.nih.gov/grants/edocs.htm and select Saving Files Locally.)

Within each part are links to pertinent sections of the PHS 398 application, other documents, or NIH web pages. To use these links in the MS Word version effectively, you must enable the "web" tool bar in order to have a "back button" to return to a page after using a link. The three parts of the 398 are described below:

Part I: Instructions for Preparing the Application

Section I: Preparing your application

Section II: Submission and review of your

application

Section III: Information pertinent to career

development awards

Section IV: Information pertinent to

institutional training grants

Part II: Supplemental Instructions for Preparing the Human Subjects Section of the Research Plan (MS Word) (PDF)

Part II of the PHS 398 is to be used if your proposed research will involve <u>human subjects</u>. These instructions assist you in determining whether human subjects are involved and include six possible scenarios and detailed instructions to assist you in completing <u>ltem E. of the Research Plan (Human Subjects Research)</u>.

Part III: Policies, Assurances, Definitions and Other Information (MS Word) (PDF)

Part III of the PHS 398 includes information on policies, assurances, definitions, and other information relating to submission of applications for traditional, solicited and unsolicited, investigator-initiated, research project grants, and cooperative agreements to the PHS. Applicants should refer to this document as well as the PHS 398 instructional materials, <u>Grants Information</u> (GrantsInfo), and <u>Grants Policy Statement</u> sections for additional sources of information.

The PHS 398 grant application instructions and interactive forms are available in electronic format. Form pages are available *separately* on the NIH website (http://grants.nih.gov/grants/funding/phs398/phs398.html#forms).

THESE INSTRUCTIONS AND APPLICATION FORMS (revised 09/2004) SUPERSEDE ALL PREVIOUS EDITIONS. Carefully read the instructions. Submission of an application that fails to meet the PHS requirements will be grounds for the PHS to delay the review or to return the application without peer review. A properly prepared application will facilitate the administrative processing and peer review that must occur before an award can be made.

While the instructions are generally applicable, many grant programs, in particular, grant programs of PHS agencies other than NIH, have additional specific instructions. Applicants should contact an official listed in the table of PHS agencies to obtain the most current information and instructions.

NIH Extramural Research and Research Training Programs

The NIH Office of Extramural Research Grants homepage (http://grants.nih.gov/grants/oer.htm) provides an array of helpful information. Applicants are encouraged to bookmark this site and visit it often.

The Division of Extramural Outreach and Information Resources (DEOIR) is the central source for general information about NIH extramural research and research training programs, funding mechanisms, the peer review system, and application procedures. Grants Information (GrantsInfo) is a communication service within the DEOIR. Information about the NIH extramural research and research training programs, funding opportunities, and the grant application process, can be obtained by e-mailing your request to: GrantsInfo@nih.gov or by calling (301) 435-0714.

Quick References

Applicants New to NIH: Getting Started

grants.nih.gov/grants/useful_links.htm

Award Data

(CRISP, extramural research grants, award trends, training and career awards)
grants.nih.gov/grants/award/award.htm

Contact Information for an NIH Staff Person

directory.nih.gov

NIH locator: (301) 496-4000

Grants Information

grants.nih.gov/grants/giwelcome.htm

E-mail: <u>GrantsInfo@nih.gov</u> Telephone: (301) 435-0714

Grant Writing Tips and Sample Applications

http://grants.nih.gov/grants/grant_tips.htm

eRA Commons

Institutions are invited to register with the eRA Commons. Registered Principal Investigators (PIs) can check assignment/contact information, review outcome, and other important information.

https://commons.era.nih.gov/commons/index.jsp. At this time the eRA Commons is available to NIH grantees only. Plans are underway to incorporate data for other HHS agencies.

NIH Office of Extramural Research Human Subjects Website

This site provides, in one place, HHS and NIH requirements and resources for the extramural community involved in human subjects research

http://grants.nih.gov/grants/policy/hs/index.htm.

Office for Human Research Protections

(Human Subject Protections, Institutional Review Boards, or related assurances) http://www.hhs.gov/ohrp

Telephone: 1-866-447-4777 or (301) 496-7005

Office of Laboratory Animal Welfare (OLAW)

(Animal Welfare and related regulations and assurances)

grants.nih.gov/grants/olaw/olaw.htm

Telephone: (301) 496-7163

Receipt/Referral of an Application

Division of Receipt and Referral
Center for Scientific Review
http://www.csr.nih.gov/EVENTS/Assignment
Process.htm

Telephone: (301) 435-0715 TTY: (301) 451-0088 Fax: (301) 480-1987

Specific Application: Before Review

Telephone or e-mail the Scientific Review Administrator named on the electronically-generated "notification of assignment" that is mailed to you upon assignment of your application.

Specific Application: Post Review

Telephone or e-mail the NIH Program Official named on the summary statement of your application.

NIH Guide for Grants and Contracts

The NIH Guide for Grants and Contracts, a weekly electronic publication (http://grants.nih.gov/grants/guide), contains announcements about funding opportunities, such as Requests for Applications (RFAs) and Program Announcements (PAs) from NIH and other PHS agencies. The Guide also contains vital information about policies and procedures. To subscribe to the Guide, visit http://grants.nih.gov/grants/guide/listserv.htm.

Funding Opportunities

Grants for health-related research and research training projects or activities make up the largest category of funding provided by the NIH Institutes/Centers (ICs) and other non-NIH agencies. Most applications for support are **unsolicited** and originate with individual investigators who develop proposed plans for research or research training within an area that is relevant to the NIH. Research project grants are awarded to institutions on behalf of a principal investigator to facilitate the pursuit of a scientific objective when the idea for the research is initiated by the investigator. If the funding IC anticipates substantial program involvement during conduct of the research, a

cooperative agreement will be awarded, rather than a grant. The NIH awards grants and cooperative agreements for terms ranging from one to five years. Institutional sponsorship assures that the awardee organization will provide the facilities and the financial stability necessary to conduct the research, and be accountable for the funds. For a list and brief description of grant mechanisms, see Part III: Policies, Assurances, Definitions, and Other Information.

GRANT AND COOPERATIVE AGREEMENT SOLICITATIONS

To hasten the development of a program or to stimulate submission of applications in an area of high priority or special concern, an awarding component will encourage applications through the issuance of a PA to describe new, continuing, or expanded program interests, or issuance of an RFA inviting applications in a well-defined scientific area to accomplish a scientific purpose.

Definitions of PAs and RFAs are as follows:

Program Announcement (PA): A formal statement about a new or ongoing extramural activity or mechanism. It may serve as a reminder of continuing interest in a research area, describe modification in an activity or mechanism, and/or invite applications for grant support. Most applications in response to PAs may be submitted to a standing submission date and are reviewed with all other applications received at that time.

Request for Applications (RFA): A formal statement that solicits grant or cooperative agreement applications in a well-defined scientific area to accomplish specific program objectives. An RFA indicates the estimated amount of funds set aside for the competition, the estimated number of awards to be made, and the application submission date(s). Applications submitted in response to an RFA are usually reviewed by a Scientific Review Group (SRG) specially convened by the awarding component that issued the RFA.

Specific PAs and RFAs are published in the <u>NIH Guide for Grants and Contracts</u> (http://grants.nih.gov/grants/guide), the <u>Federal Register</u>

(http://www.gpoaccess.gov/nara/index.html), and Grants.gov "Find grant funding opportunities" (http://www.grants.gov/Find). Read the RFA or PA carefully for special instructions. The instructions in the RFA or PA may differ from the general instructions, and they supersede the general instructions. Each RFA or PA published in the NIH Guide for Grants and Contracts, the Federal Register, Grants.gov Find, or other public document contains contact information under Inquiries in addition to information specific to the RFA or PA.

Research Grant Mechanisms and Program Guidelines

A partial list of research grant mechanisms is provided below. As noted in the descriptions in Part III: Policies, Assurances, Definitions, and Other Information, not all awarding components use all programs. For a complete listing of program guidelines, visit the OER Grants website

http://grants.nih.gov/grants/funding/funding_program.htm.

Research Grants:

- Basic Research Grant (R01)
- Small Research Grant (R03)
- Academic Research Enhancement Award (AREA) (R15)
- Exploratory/Developmental Grant (R21, R33, R21/R33)
- Small Business Innovation Research Grant (SBIR) (R43/R44)
- Small Business Technology Transfer Grant (STTR) (R41/R42)
- Program Project Grant (P01)
- Research Center Grant (P50)
- Scientific Meeting Support (R13, U13)
- Research Grants to Foreign Institutions and International Organizations

Training, Fellowships and Career Development Programs

NIH Institutional Ruth L. Kirschstein
 National Research Service Award (T32)

- Individual Ruth L. Kirschstein National Research Service Award Fellowships (NRSA) (F31, F32, F33, F34, etc.)
- Research Career Development Award (K Award)

APPLICATIONS AVAILABLE FROM OTHER OFFICES

- International Research Fellowship Award Application (NIH 1541-1)
- Nonresearch Training Grant Application (PHS 6025)
- Health Services Project Application (5161-1)

Interactions with PHS Staff

The PHS agencies encourage applicants to communicate with staff throughout the entire application, review and award process. Web site addresses and staff phone numbers of relevant NIH awarding components and other PHS agencies are listed in the table below.

All inquiries regarding the assignment, review, or recommendation on funding of applications are to be made only to PHS officials.

PHS Agency Contact Table		
NATIONAL INSTITUTES OF HEALTH		
Fogarty International Center	301-496-1653	
National Cancer Institute	301-496-3428	
National Center for Complementary and Alternative Medicine	301-496-4792	
National Center on Minority Health and Health Disparities	301-402-1366	
National Center for Research Resources	301-496-6023	
National Eye Institute	301-451-2020	
National Heart, Lung, and Blood Institute	301-435-0260	
National Human Genome Research Institute	301-496-7531	
National Institute on Aging	301-496-9322	
National Institute on Alcohol Abuse and Alcoholism	301-443-4375	
National Institute of Allergy and Infectious Diseases	301-496-7291	
National Institute of Arthritis and Musculoskeletal and Skin Diseases	301-594-2463	
National Institute of Biomedical Imaging and Bioengineering	301-451-4792	
National Institute of Child Health and Human Development	301-496-0104	
National Institute on Deafness and Other Communication Disorders	301-496-1804	
National Institute of Dental and Craniofacial Research	301-594-4800	
National Institute of Diabetes and Digestive and Kidney Diseases	301-594-8834	
National Institute on Drug Abuse	301-443-2755	
National Institute of Environmental Health Sciences	919-541-7723	

PHS Agency Contact Table		
National Institute of General Medical Sciences	301-594-4499	
National Institute of Mental Health	301-443-3367	
National Institute of Neurological Disorders and Stroke	301-496-9248	
National Institute of Nursing Research	301-594-6906	
National Library of Medicine	301-496-4621	
CENTER FOR SCIENTIFIC REVIEW	301-435-0715	
	TTY (301) 451-0088	
Study Section Information		
OTHER PHS AGENCIES WITHIN DHHS		
AGENCY FOR HEALTHCARE RESEARCH AND QUALITY	301-427-1457	
CENTERS FOR DISEASE CONTROL AND PREVENTION		
National Institute for Occupational Safety and Health	404-498-2530	
Procurement and Grants Office	770-488-2700	
FOOD AND DRUG ADMINISTRATION	301-827-7185	
OFFICE OF THE ASSISTANT SECRETARY FOR HEALTH		
Office of Adolescent Pregnancy Programs	301-594-4004	
Office of Family Planning	301-594-4008	
Agency for Toxic Substances and Disease Registry	404-842-6630	
Indian Health Service	301-443-0578	

BEFORE SUBMISSION

You may wish to contact NIH staff with a variety of questions before submitting an application.

Contact GrantsInfo and/or the Division of Receipt and Referral in CSR:

- To identify Institutes/Centers at NIH or other non-NIH agencies and/or a Scientific Review Group (SRG) that might be appropriate for your application. Note requests for assignment to an Institute/Center and/or a SRG may be made in a cover letter at the time of application submission.
- To learn about <u>grant mechanisms</u>.

 To receive advice on preparing and submitting an application (e.g., format, structure).

Contact program staff in the relevant awarding component:

- To determine whether your proposed application topic would fit into the NIH Institute/Center's (IC) or other non-NIH agency's programmatic area.
- To learn about programmatic areas of interest to the IC or other non-NIH agencies.
- To find out about requesting an assignment to an IC.

 To discuss whether you should respond to an RFA.

Contact Scientific Review Administrators in the Center for Scientific Review to discuss requesting assignment to a Scientific Review Group (SRG).

AFTER SUBMISSION

If the initial assignment to an IC or SRG seems inappropriate, the principal investigator/program director may request reassignment. Such requests should be made in writing to:

Division of Receipt and Referral Center for Scientific Review National Institutes of Health 6701 Rockledge Drive, Suite 2030, MSC 7720 Bethesda, MD 20892-7720

Fax requests (301-480-1987) are also acceptable.

Although these requests will be carefully considered, the final determination will be made by the PHS agency.

Applicants must never contact reviewers regarding their applications because discussion of the scientific content of an application or an attempt to influence review outcome will constitute a conflict of interest in the review process. Reviewers are required to notify the Scientific Review Administrator if they are contacted by an applicant. Communication by the applicant to a reviewer may delay the review or result in the return of the application without review.

AFTER ASSIGNMENT

Contact your Scientific Review Administrator to discuss the review assignment, to request permission to send additional/corrective materials, and/or to discuss any review concerns (e.g., expertise needed on your study section, conflicts, reviewers that may have bias).

AFTER PEER REVIEW

Feedback to applicants is very important. Once the principal investigator receives the <u>Summary</u> <u>Statement</u>, s/he may contact the appropriate awarding component program official (noted on the Summary Statement):

- To discuss the review outcome of the application and obtain guidance.
- To get feedback and answers to any questions about the Summary Statement.
- To find out the meaning of a numerical designation pertaining to human subjects or vertebrate animals on the Summary Statement.
- To find out the funding status of an application.

Note a paper copy of the Peer Review Outcome Letter and Summary Statement is no longer mailed to the PI. Pls must now access this information in the eRA Commons.

Grants Policy Statements

The <u>NIH Grants Policy Statement</u> serves as a term and condition of award and is a compilation of the salient features of policies and various policy issues regarding the administration of NIH awards.

The <u>HHS Grants Policy Statement</u> serves as a term and condition of award and is a compilation of the salient features of policies and various policy issues regarding the administration of grant awards from other PHS agencies, excluding NIH awards.

IMPORTANT CHANGES AND REMINDERS

CHANGES

Following is a summary of policy changes and notifications that have been implemented since

the release of the PHS 398 (09/04 version). These changes have been incorporated into the 4/2006 interim revision of the PHS 398 application. For easy reference, the chart continues to include all policy changes previously noted in these instructions.

Title	NIH Guide Link
NIH Announces Interim Changes to the PHS398 Application and Instructions	NOTICE: NOT-OD-06-056 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-06-056.html
NIH Announces Change in Business Process: Replacing the Principal Investigator Signature on Grant Applications, Progress Reports, and Prior Approval Requests with an Institutional Compliance Requirement	NOTICE: NOT-OD-06-054 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-06- 054.html
Updated Instructions Regarding Inclusion of Publications as Appendix Materials Announces new NIH policy on publications as appendix material—minimizing paper submissions, allowing URLs when available	NOTICE: NOT-OD-06-051 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-06- 051.html
Establishment of Multiple Principal Investigator Awards for the Support of Team Science Projects Announces new NIH policy allowing multiple	NOTICE: NOT-OD-06-036 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-06-036.html
principal investigators Department of Health and Human Services MPAs and CPAs Expire December 31, 2005 Announces OHRP policy concerning the expiration of MPA & CPA assurances	NOTICE: NOT-OD-06-015 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-06- 015.html
NIH Support for Conferences and Scientific Meetings (R13/U13): Transition to the SF424 (R&R) Form and Electronic Submission through Grants.gov	NOTICE: NOT-OD-05-081 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05- 081.html
Announces transition of grant applications for conferences and scientific meetings from the PHS398 application to the SF424(R&R) application and electronic submission through Grants.gov	

Title	NIH Guide Link
Change in Submission Dates for Academic Research Enhancement Award (AREA) Program	NOTICE: NOT-OD-05-080 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05- 080.html
Announces change in submission date for AREA applications, now transitioned to the SF424 (R&R) application and electronic submission	
NIH Announces Plans to Eliminate Mailing of Paper Notifications: Summary Statements & Peer Review Outcome Letters	NOTICE: NOT-OD-05-075 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05-075.html
Announces new NIH policy eliminating mailing of paper peer review outcome letters and summary statements, directing PIs to the eRA Commons instead	
NIH Announces Initial Plans to Transition to the SF424(R&R) Application and Electronic Submission through Grants.gov	NOTICE: NOT-OD-05-067 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05-067.html
Announces overall NIH plans to transition funding mechanisms from the PHS398 application to the SF424(R&R) application and electronic submission through Grants.gov	
Small Business Innovation Research Program and Small Business Technology Transfer Research Program Electronic Registration	NOTICE: NOT-OD-05-068 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05-068.html
Announces transition of SBIR & STTR programs from the PHS398 application to the SF424(R&R) application and electronic submission through Grants.gov	
Implementation of Policy on Enhancing Public Access to Archived Publications Resulting from NIH-Funded Research	NOTICE: NOT-OD-05-045 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05- 045.html
Provides summary of the new policy and guidance for implementation	
Notice of Change in Number of Revisions of Small Grant Applications (R03)	NOTICE: NOT-OD-05-046 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05- 046.html
Announces change in policy for the number of R03 revisions	
Updated Instructions to the PHS 398 (DHHS Public Health Service Grant Applications) Now Available	NOTICE: NOT-OD-05-039 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05- 039.html
Announces a variety of instructional changes to reflect policy changes and/or provide clarity	

Title	NIH Guide Link
Policy on Enhancing Public Access to Archived Publications Resulting from NIH- Funded Research	NOTICE: NOT-OD-05-022 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05- 022.html
Establishes new NIH Policy on enhancing public access to publications resulting from NIH-funded research	
NIH Policy on Late Submission of Grant Applications	NOTICE: NOT-OD-05-030 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05- 030.html
Articulates existing NIH policy on late submission of grant applications	
Policy changes incorporated in previous revi	sions continue to be noted below for easy reference.
NIH IMPLEMENTATION OF OFFICE FOR HUMAN RESEARCH PROTECTIONS (OHRP) GUIDANCE ON RESEARCH INVOLVING CODED PRIVATE INFORMATION OR BIOLOGICAL SPECIMENS Revised instructions to the PHS 398 reflect the NIH implementation of the August 10, 2004 OHRP Guidance	NOTICE: NOT-OD-05-020 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05-020.html
NIH ANNOUNCES REVISED POLICY: APPLICATIONS THAT INCLUDE CONSORTIUM/CONTRACTUAL FACILITIES AND ADMINISTRATIVE COSTS	NOTICE: NOT-OD-05-004 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05- 004.html
Revised policy now applies to all applications involving consortium/contractual F&A costs, solicited & investigator-initiated, regardless budget amount or budget format.	
NIH ANNOUNCES UPDATED CRITERIA FOR EVALUATING RESEARCH GRANT APPLICATIONS NIH Peer Review Criteria modified to better	NOTICE: NOT-OD-05-002 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05- 002.html
accommodate interdisciplinary, translational, and clinical projects.	
NIH POLICY ON SHARING OF MODEL ORGANISMS FOR BIOMEDICAL RESEARCH	NOTICE: NOT-OD-04-042 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-04- 042.html
New Policy on Sharing Model Organisms PUBLICATION OF THE REVISED NIH GRANTS POLICY STATEMENT (REV. 12/03)	NOTICE: NOT-OD-04-009 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-04-009.html
NIH SUPPORT FOR SCIENTIFIC MEETINGS AND CONFERENCES NIH has established specific submission dates for conference grant applications (April 15, August 15, December 15) and requires advance approval from an IC for submission.	PAR-03-176 http://grants.nih.gov/grants/guide/pa-files/PAR-03- 176.html

Title	NIH Guide Link
REQUIREMENT OF DUNS NUMBER A Dun and Bradstreet (D&B) Data Universal Numbering System (DUNS) number is required on applications for Federal grants or cooperative agreements.	NOTICE: NOT-OD-03-055 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-055.html
REVISED NIH POLICY ON SUBMISSION OF A REVISED (AMENDED) APPLICATION Eliminates the two-year time frame to submit up to two amended applications.	NOTICE: NOT-OD-03-041 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03- 041.html
REMINDER AND CLARIFICATION – DELIVERY OF COMPETING GRANT, COOPERATIVE AGREEMENT, AND FELLOWSHIP APPLICATIONS	NOTICE: NOT-OD-03-040 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-040.html
Clarifies zip code for U.S. Postal Service express mail vs. courier service express mail.	NOTICE: NOT-OD-02-012 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02- 012.html
NOTICE OF LEGISLATIVE MANDATES CONTAINED IN THE FY 2003 CONSOLIDATED APPROPRIATIONS RESOLUTION P.L. 108-07; SIGNED FEBRUARY 20, 2003 Acknowledgment of Federal Funding; Anti- Lobbying; Continued Salary Limitation; Ban on Funding of Human Embryo Research; Purchase of American-Made Equipment and Products; Limitation on Use of Funds for Promotion of Legalization of Controlled Substances	NOTICE: NOT-OD-03-035 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-035.html NIH updates this notice annually in the NIH Guide for Grants and Contracts.
Restriction on Distribution of Sterile Needles; Restriction on Abortions	
FINAL NIH STATEMENT ON SHARING RESEARCH DATA Applications with direct costs greater than \$500,000 in any single year, or if specifically required by the RFA, must address data- sharing in the application.	NOTICE: NOT-OD-03-032 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-032.html
RESUBMISSION OF UNPAID RFA APPLICATIONS AND RESUBMISSION OF APPLICATIONS WITH A CHANGED GRANT ACTIVITY MECHANISM Changes policy on new vs. amended applications.	NOTICE: NOT-OD-03-019 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-019.html
LABORATORY ANIMAL WELFARE: CHANGE IN PHS POLICY ON HUMANE CARE AND USE OF LABORATORY ANIMALS Implements Just-in-Time policy for Institutional Animal Care and Use Committee (IACUC) Approval Date.	NOTICE: NOT-OD-02-064 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02- 064.html

Title	NIH Guide Link
GRADUATE STUDENT COMPENSATION NIH will provide reasonable amounts for graduate compensation, consistent with the requested budget for the position(s) and up to the currently effective NRSA zero postdoctoral stipend level.	NOTICE: NOT-OD-02-017 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-017.html
REVISED POLICY ON THE ACCEPTANCE FOR REVIEW OF UNSOLICITED APPLICATIONS THAT REQUEST \$500,000 OR MORE IN DIRECT COSTS Implements six week advance window for NIH acceptance.	NOTICE: NOT-OD-02-004 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-004.html
AMENDMENT: NIH POLICY AND GUIDELINES ON THE INCLUSION OF WOMEN AND MINORITIES AS SUBJECTS IN CLINICAL RESEARCH	NOTICE: NOT-OD-02-001 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-001.html
REQUIRED EDUCATION IN THE PROTECTION OF HUMAN RESEARCH PARTICIPANTS Implements new requirement for education on the protection of human research participants for all individuals identified as Key Personnel.	NOTICE: NOT-OD-01-061 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-01- 061.html
NIH POLICY ON REPORTING RACE AND ETHNICITY DATA: SUBJECTS IN CLINICAL RESEARCH	NOTICE: NOT-OD-01-053 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-01-053.html

CHANGES TO INSTRUCTIONS

(4/2006 Interim Revision)

This interim revision implements a number of new and/or changing business processes:

- 1) Replacing the PI signature on the application with an Institutional compliance requirement;
- 2) Changes in measure for reporting effort devoted to a project from percent effort to person months;
- 3) Changing the requirements for including publications as appendix material;
- 4) Implementing multiple Principal Investigators for NIH grants;
- 5) Implementing specific requirements for Select Agents Research;

- 6) Modifying the requirements for Biographical Sketch; and
- 7) Harmonizing the PHS398 & SF424 (R&R) instructional text and removing data collection and instructions for those mechanisms that have transitioned to the SF424 (R&R) application and electronic submission.

Changes to specific form pages are noted below.

Form Page 1: Face Page

- New form page developed (Form Page 1continued) to capture PI information for multiple PIs.
- Item 3h. The eRA Commons UserName (the unique name used to log into the system) is now required for all Pls.
- Item 14, PI Assurance has been deleted.

Form Page 2:

- Instructions for Key Personnel have been revised to incorporate multiple Pls.
- The Disclosure Permission Statement applicable for SBIR/STTR applicants has been removed.

Form Page 3: Table of Contents

- The Table of Contents for the Research Plan has been revised to include two new sections—Select Agent Research and Multiple PI Leadership Plan.
- The Commercialization Plan item specific to SBIR/STTR applicants has been removed.

Form Page 4: Detailed Budget

- The Personnel Section has been revised to replace Type of Appointment & Percent Effort columns with Person Month columns (calendar, academic, and summer).
- The budget item for SBIR/STTR Fee has been removed.

Form Page 5: Budget for Entire Proposed Period of Support

The budget item for SBIR/STTR Fee has been removed.

Modular Budget Format Page:

- Instructions have been modified for the Personnel Justification section to request effort devoted to the project using person months (calendar, academic, and summer).
- The budget justification section for SBIR/STTR Fee has been removed.

Resources Format Page:

Instructions revised to request information concerning biocontainment resources when Select Agent Research is proposed.

Checklist Form Page:

- All SBIR/STTR-specific data fields and information have been removed.
- Section 2. Assurance has been revised to include new PI Assurance.

Key Personnel Format Page:

The column requesting annual effort has been modified to now reflect person months (calendar, academic, summer).

Personal Data Form Page:

Instructions have been revised to cover the collection of this demographic information for all PIs.

Biographical Sketch Format Page:

Instructions have been revised to eliminate the 2-page subsection page limit for sections A&B. The entire biographical sketch still has a 4-page limit, including the table at the top of page one.

Other Support Format Page Example:

Instructional text and the example have been modified to reflect effort measurements in person months (calendar, academic, summer).

(9/2004 Revision)

In an effort to simplify the instructions, the PHS 398 has been restructured into three distinct parts. Instructional information related to the preparation, submission and review of your application is included in this section, Part I. Information relating to human subjects research is now in a separate section of the PHS 398, Part II: Supplemental Instructions for Preparing the Human Subjects Section of the Research Plan. Information relating to policies and assurances, definitions and other non-instructional information is now is a separate section, Part III: Policies, Assurances, Definitions, and Other Information.

Font Requirement: NIH now requires the use of an Arial, Helvetica, Palatino Linotype or Georgia typeface and a font size of 11 points or larger. (A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies. A smaller font size may be used for figures, graphs, diagrams, charts, tables, figure legends, and footnotes,

but this type must follow the font typeface requirement and be readily legible.)

NIH Peer Review Criteria: The Review Criteria have been updated to better accommodate interdisciplinary, translational, and clinical projects.

CHANGES TO APPLICATION FORMS

<u>Note:</u> All Form Pages and Format Pages have been modified to be more compatible with existing software, and Microsoft Word (MS Word) files have replaced previous versions of Rich Text Format (RTF) files. Portable Document Files (PDF) of the form pages are offered as an alternative.

Form Page 1: Face Page

Item 1. The length of the title has been increased to 81 characters.

Item 3h. <u>eRA Commons User Name</u> field has been added.

Item 4. Human Subjects Research box has been modified as follows:

- 4a: No/Yes check boxes for "Research Exempt"
- 4b: Human Subjects Assurance Number
- 4c: No/Yes checkboxes for Clinical Trial
- 4d: No/Yes checkboxes for NIH-Defined Phase III Clinical Trial

Form Page 2:

Form Page 2 is now two pages (Form Page 2 and Form Page 2-continued) which consist of five sections: Description, Performance Sites, Key Personnel, Other Significant Contributors, and Human Embryonic Stem Cells.

As part of the **Description**, instructions have been added to succinctly (2-3 sentences) describe the relevance of the proposed research to public health. This component of the Description should be prepared using concise terms and plain language that can be understood by a general, lay audience.

Key Personnel. A field has been added for the eRA Commons User Name. This data item is currently optional.

Other Significant Contributors. A category has been added to Form Page 2 that identifies individuals who have committed to contribute to the scientific development or execution of the project, but are not committing any specified measurable effort to the project. See Other Significant Contributors.

Human Embryonic Stem Cells. Instructions have been added regarding projects that involve human embryonic stem cells. Applicants must include the registration number of the specific cell line(s) from the stem cell registry (see http://stemcells.nih.gov/registry/index.asp).

Form Pages 4 and 5:

Budget pages have been modified to implement the new policy on Direct Cost Limitations. Specifically, the "Consortium/Contractual Direct Costs" budget row has been moved to above the "Subtotal Direct Costs" line. Instructions have been revised to implement the new policy.

Modular Budget Format Page:

The budget fields have been modified to fully implement the new policy on Direct Cost Limitations. Specifically, users must now separate the Consortium F&A costs from the other Direct Costs. Instructions have been revised to implement the new policy.

Biographical Sketch Format Page:

A field has been added for the eRA Commons User Name.

Personal Data Form Page:

Applicants are now requested to provide **only** the last four digits of the Social Security Number. While providing this information remains voluntary, it is hoped that by limiting the data to only the last four digits, individuals will be more receptive to providing it. This data continues to provide the agency with vital information necessary for accurate identification, referral, and review of applications and for management of PHS grant programs.

Key Personnel Report Format Page:

The request for a Social Security Number is now limited to the last four digits.

Checklist Form Page:

A field has been added for "Change of Grantee Institution."

The form page also includes two distinct options for grants at Foreign Institutions or Domestic Grants with Significant Foreign Involvement. Also, a text entry field has been added to list the countries involved.

Section III – Research Career Development Award Instructions:

The Checklist page is now required at the time of application submission.

REMINDERS

- Font and margin specifications must be followed; if not, application processing may be delayed or the application may be returned to the applicant without review.
- Prepare a <u>succinct</u> Research Plan. There is no requirement for applicants to use the maximum allowable pages allotted to the Research Plan (Items A-D). The remaining sections (E-L) of the Research Plan have no maximum allowable pages, but should be succinct.
- Several elements of an application are no longer required at the time the application is submitted. Instead, this information will be requested later in the review cycle (i.e., "just-in-time") to ensure that it is current. See <u>Just-In-Time Policy</u> in Part III.

I. PREPARING YOUR APPLICATION

A. Introduction

Read all of the instructions thoroughly prior to preparing your application.

These instructions pertain to applications for research project grants. Use the additional instructions and sample pages included in sections III or IV of this document when applying for <u>Career Development Awards</u> or <u>Institutional Ruth L. Kirschstein National</u> Research Service Awards.

For other specialized grants or cooperative agreements, request additional instructions from the appropriate NIH awarding component or other PHS agency. Phone numbers for contacting the appropriate staff are listed in the <u>Agency Contact Table</u>. For further assistance, contact:

GrantsInfo

National Institutes of Health (NIH)

E-mail: <u>GrantsInfo@nih.gov</u> Phone: (301) 435-0714.

AUTHORIZATION

The PHS requests the information described in these instructions pursuant to its statutory authorities for awarding grants, contained in Sections 301 (a) and 487 of the PHS Act, as amended (42 USC 241a and 42 USC 288). Therefore, such information must be submitted if an application is to receive due consideration for an award. Lack of sufficient information may hinder the ability of the PHS to review an application and to monitor the grantee's performance.

PAPERWORK BURDEN

The PHS estimates that it will take approximately 40 hours to complete this application for a regular research project grant. This estimate excludes time for development of the scientific plan. Items such as human subjects and vertebrate animals are cleared and accounted for separately. Therefore, these

items are also not part of the time estimate. An agency may not conduct or sponsor the collection of information unless it displays a currently valid OMB control number. Nor is a person required to respond to requests for the collection of information without this control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: NIH, Project Clearance Office, 6705 Rockledge Drive MSC 7974, Bethesda, MD 20892-7974, ATT: PRA (0925-0001). Do not send applications or any materials related to training or career award applications to this address.

B. General Instructions

Read and follow the instructions carefully to avoid delays, misunderstandings and possible return of the application. Adherence to font and margin requirements is necessary for several reasons. No applicant should have an advantage over other applicants by providing more content in his/her application by using smaller, denser type. Small type sizes may also make it difficult for reviewers to read the application.

The NIH Center for Scientific Review (CSR), Division of Receipt and Referral has the responsibility to make the final determination of legibility and the authority to return applications. This decision is final and not subject to appeal. Inquiries should be directed to the:

CSR, Division of Receipt and Referral Phone: 301-435-0715; TTY 301-451-0088; Fax: 301- 480-1987

Forms and Format Pages

- Prepare the application using the PHS 398 MS WORD or PDF form pages and format pages as provided.
- Form pages must be identical to those provided. You may substitute computergenerated facsimiles for governmentprovided forms; however, they must maintain the exact wording and format of the government forms, including all captions and spacing.

- Format pages are intended to assist you in the development of specific sections of the application. Alternatively, you may create a page similar to any format provided as long as all the requisite information is included.
- The face page must not have any shading/colors.
- Font sizes on some PHS 398 form pages vary due to field or space limitations. The PHS 398 Microsoft Word (MS WORD) and Portable Document File (PDF) Form Pages as provided are acceptable to NIH. All other sections of your application (e.g., Biographical Sketch; Introduction, if necessary; Literature Citations; and the Research Plan) must conform to the font requirements stated below.
- Some fields on the PDF Form Pages are pre-set to auto calculate. In these cases, a zero will appear until actual data are entered.

FORMAT SPECIFICATIONS

Follow font and format specifications. Otherwise, application processing may be delayed, or the application may be returned to the applicant without review.

Font

- Use an <u>Arial, Helvetica, Palatino</u>
 <u>Linotype or Georgia typeface and a font</u>
 <u>size of 11 points or larger</u>. (A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies.)
- Type density, including characters and spaces, must be no more than 15 characters per inch.
- Type may be no more than six lines per inch.
- Use black ink that can be clearly copied.
- Print must be clear and legible.

Page Margins

■ Use <u>standard size (8 ½" x 11")</u> sheets of paper.

 Use at least one-half inch margins (top, bottom, left, and right) for all pages, including continuation pages.

Application Paging

- Since a number of reviewers will be reviewing applications as an electronic document and not a paper version, applicants are strongly encouraged to use only a standard, single-column format for the text. Avoid using a twocolumn format since it can cause difficulties when reviewing the document electronically.
- The application must be single-sided and single-spaced.
- Consecutively number pages throughout the application. Do not use suffixes (e.g., 5a, 5b).
- Do not include unnumbered pages.

Figures, Graphs, Diagrams, Charts, Tables, Figure Legends, and Footnotes

 You may use a smaller type size but it must be in black ink, readily legible, and follow the font typeface requirement.

Photographs and Images

- Do not include photographs or other materials that are not printed directly on the application page in the body of the application. Pictures or other materials that are glued or taped onto application pages are incompatible with the current duplication/scanning process.
- You may include black-and-white or color images in the six (6) submitted copies provided such images are printed directly on the application page and are critical to the content of the application.

Copies

- Original (signed by an authorized organizational official) and five exact, legible, single-sided photocopies.
- Do not use photo reduction.
- The application must contain only material that reproduces well when photocopied in black and white. Glossy

photographs or other materials that cannot be photocopied must be submitted in five collated sets as appendices (see <u>Section I-8 Appendix</u>). <u>Note:</u> Full-sized glossy photographs may be included in the appendix; however, a photo copy of each must also be included within the page limitations of the Research Plan.

Grantsmanship

- Use English and avoid jargon.
- If terms are not universally known, spell out the term the first time it is used and note the appropriate abbreviation in parentheses. The abbreviation may be used thereafter.

PAGE LIMITATIONS AND CONTENT REQUIREMENTS

All applications and proposals for NIH funding must be self-contained within specified page limitations.

Observe the page number limitations given in Table 1. Only in cases involving interdependent multiple subprojects (e.g., Program Projects and Multi-Center Clinical Trials) will the PHS accept applications that exceed the page number limitations. However, specific page number limits may apply to each subproject. For information pertaining to page number limits for such projects, contact the awarding component to which the application may be assigned. (See Agency Contact Table.) The page number limitations may also be different for other specialized grant applications (e.g., R03 and R21 applications). Consult and follow the additional instructions for those applications.

TABLE 1. PAGE LIMITATIONS AND CONTENT REQUIREMENTS

Section	Page Limit	Content
Introduction - New applications - Revised/Resubmission applications - Supplemental/Revision applications	Not required/Not to be submitted 3	See <u>Instructions</u>
Research Plan - Sections A-D	25* * Some exclusions for competing continuation/renewal applications	Text including all figures, charts, tables, and diagrams
- Sections E-L	none	
Biographical Sketches	4	No more than four pages for each person listed as Key Personnel.
<u>Literature Cited</u>	none	Complete citations, including titles and all authors
<u>Appendix</u>	none	New requirements effective 1/3/2007. See Instructions for specifics. Generally limited publications are allowed now only in certain situations. Photographs (include a copy in the Research Plan),

Section	Page Limit	Content
		questionnaires, and other materials that do not photocopy well are still allowed.
PAs and RFAs	Page limitations specified in the PA and RFA announcement in the NIH Guide take precedence.	See specific instructions in PAs and RFAs published in the <i>NIH Guide</i> .

REVISED/RESUBMISSION APPLICATIONS

NIH allows the submission of up to two Revised/Resubmission applications and no longer restricts those submissions to a two-year timeframe. See NIH Policy on Submission of a Revised/Resubmission (amended) Application in Part III of the PHS 398.

NIH has established new policies for application resubmissions of certain categories. See Resubmission of Unpaid RFA Applications and Resubmission of Applications with a Changed Grant Activity Mechanism in Part III of the PHS 398.

Before a revised/resubmission application can be submitted, the Summary Statement must be available in the eRA Commons.

Acceptance of a revised/resubmission application automatically withdraws the prior version, since two versions of the same application cannot be simultaneously pending.

Introduction to Revised/Resubmission
Application. The revision must include an
Introduction of not more than three pages that
summarizes the substantial additions, deletions,
and changes. The Introduction must also
include responses to the criticisms and issues
raised in the Summary Statement. Insert the
Introduction just before the very beginning
of the Research Plan.

Research Plan of Revised/Resubmission Application. A revised/resubmission application must include substantial changes. Identify the changes in the Research Plan clearly by bracketing, indenting, or changing typography, unless the changes are so extensive as to include most of the text. This exception should be explained in the Introduction. **Do not underline or shade changes.** The Preliminary Studies/Progress Report section should incorporate any work done since the prior version was submitted.

Application processing may be delayed or the application may be returned if it does not comply with all of these requirements.

Investigators who have submitted three versions of an application and have not been successful often ask NIH staff how different the next application submitted needs to be to be considered a new application. It is recognized that investigators are trained in a particular field of science and are not likely to make drastic changes in their research interests. However, a new application following three reviews is expected to be substantially different in content and scope with more significant differences than are normally encountered in a revised/resubmission application. Simply rewording the title and Specific Aims or incorporating minor changes in response to comments in the previous Summary Statement does not constitute a substantial change in scope or content. Changes to the Research Plan should produce a significant change in direction and approach for the research project. Thus, a new application would include substantial changes in all sections of the Research Plan, particularly the Specific Aims and the Research Design and Methods sections.

In the referral process, NIH staff look at all aspects of the application, not just the title and Description (abstract). Requesting review by a

different review committee does not affect the implementation of this policy. When necessary, previous applications are analyzed for similarities to the present one. Thus, identical applications or those with only minor changes will not be accepted for review.

COMPETING SUPPLEMENTAL/REVISION APPLICATION

A competing supplemental/revision application may be submitted to request support for a significant expansion of a project's scope or research protocol. Applications for competitive supplements/revision are **not appropriate** when the sole purpose is to restore awards to the full SRG-recommended level if they were administratively reduced by the funding agency. A supplemental/revision application **should not be submitted** until after the original application has been awarded and **may not extend beyond the term of the current award period.**

Provide a one-page introduction at the beginning of the Research Plan that describes the nature of the supplement/revision and how it will influence the specific aims, research design, and methods of the current grant. Any budgetary changes for the remainder of the project period of the current grant should be discussed under the budget justification. The body of the application should contain sufficient information from the original grant application to allow evaluation of the proposed supplement/revision in relation to the goals of the original application.

If the supplemental/revision application relates to a specific line of investigation presented in the original application that was not recommended for approval by the SRG, then the applicant must respond to the criticisms in the prior Summary Statement, and substantial revisions must be clearly evident and summarized in the introduction.

ADMINISTRATIVE SUPPLEMENTS

An administrative supplement provides additional funding to meet increased costs that are within the scope of your approved application, but that were unforeseen when the new or competing continuation/renewal

application was submitted. If you are contemplating supplemental funding, you must consult in advance with your designated Grants Management Officer and Program Official. It is important for you to submit a request before your grant expires. To be considered for an administrative supplement, you must submit a request in writing to the IC (not to CSR), signed by the authorized Business Official, describing the need for additional funding and the categorical costs. In your letter, also be sure to point out what you will NOT be able to accomplish if such a request is denied.

C. Specific Instructions

1. FACE PAGE (MS WORD OR PDF)

The first part of the Face Page (Form Page 1) must be printed on a single page. If Form Page 1-continued is used, it should be printed as a separate page. The Face Page must not have any shading or colors.

The information provided on the Face Page of the application and the fiscal information, including the calculation of F&A costs, must be verified by the official signing for applicant organization.

Item 1. Title of Project

Do not exceed 81 characters, including the spaces between words and punctuation.

Choose a descriptive title that is specifically appropriate. A *new* application must have a different title from any other PHS project with the same principal investigator/program director. A *competing continuation*/renewal *or revised/resubmission application* should normally have the same title as the previous grant or application. If the specific aims of the project have significantly changed, choose a new title. A *supplemental/revision application* must have the same title as the currently funded grant.

Item 2. Response to Specific Request for Applications (RFA) or Program Announcement (PA)

Check "Yes" and insert the appropriate announcement number (e.g., PA-04-007) and title of the announcement if the application is submitted in response to an RFA or a PA

issued through the NIH Guide for Grants and Contracts.

If an application is being submitted as a R03 or R21, a program announcement that includes this mechanism **must** be specified in Item 2. Note that not all Institutes and Centers use the R03 and/or R21 mechanisms; in addition, there may be Institute/Center specifications for these mechanisms.

In addition, if the application is for the Career Development Award, Academic Research Enhancement Award (AREA), Institutional Ruth L. Kirschstein National Research Service Award, or AIDS research, state that after the title.

For RFAs, attach the <u>RFA label</u> or a facsimile, including the RFA number, to the bottom of the Face Page of the original application. The RFA label is under the general mailing label, following the Checklist and Personal Data pages. Any special instructions in the RFA must be followed when preparing the application.

Item 3. Principal Investigator(s)/Program Director(s)

New Investigator. Check "Yes" in the "New Investigator" box only if the principal investigator has not previously competed successfully for an NIH-supported research project other than the following small or early stage research awards:

- Pathway to Independence Award-Research Phase (R00)
- Small Grant (R03)
- Academic Research Enhancement Award (R15)
- Exploratory/Developmental Grant (R21)
- Clinical Trial Planning Grant (R34)
- Dissertation Award (R36)
- Small Business Technology Transfer Grant-Phase I (R41)
- Small Business Innovation Research Grant-Phase I (R43)
- Shannon Award (R55)
- NIH High Priority, Short-Term Project Award (R56)

Additionally, the PD/PI is not excluded from consideration as a "New Investigator" if he/she has received an award from any of the following classes of awards:

Training-Related and Mentored Career Awards

- Fellowships (F05, F30, F31, F32, F34, F37, F38)
- Mentored-career awards (K01, K08, K22, K23, K25, K99-R00)
- Other mentored career awards (developmental K02 as used by NINDS and the developmental K07)
- Loan repayment contracts (L30, L32, L40, L50, L60)

Please note that current or past recipients of non-mentored career awards that normally require independent research support (K02, K05, K24, and K26) are not considered new investigators.

Instrumentation, Construction, Education, or Meeting Awards

- G07, G08, G11, G13, G20
- \$10, \$15
- X01, X02
- R25
- C06, UC6
- R13, U13

In general, if the PD/PI has competed successfully as PD/PI for a significant NIH independent research award, he/she is not considered a new investigator and must check "No."

When Multiple PD/PIs are proposed, all PD/PIs must meet the definition of New Investigator to check "Yes" in the "New Investigator" box.

<u>Item 3a. Name of Principal Investigator/ Program</u> Director

Name of Principal Investigator/ Program Director. Name the one person responsible to the applicant organization for the scientific and technical direction of the project. PHS staff conduct official business only with the named principal investigators and institutional officials. A supplemental/revision application must have the same principal investigator/program director as the currently funded grant.

When multiple PIs are proposed, see detailed instructions at the end of this section.

Item 3b. Degree(s)

Indicate up to three academic and professional degrees or other credentials, such as licenses (e.g., R.N.).

Item 3c. Position Title

Provide the academic or professional title of the principal investigator/program director. If more than one title, indicate the one most relevant to the proposed project (e.g., Professor of Biochemistry, Chief of Surgical Service, or Group Leader).

Item 3d. Mailing Address

Provide complete information (including room number, building, and street address) necessary for postal delivery. All written communications with the principal investigator will use this address. For electronic mail, enter the appropriate e-mail address (not a website URL).

<u>Item 3e. Department, Service, Laboratory, or Equivalent</u>

Indicate your organizational affiliation, such as Department of Medicine, Materials Research Laboratory, or Social Sciences Institute.

Item 3f. Major Subdivision

Indicate your school, college, or other major subdivision, such as medical, dental, engineering, graduate, nursing, or public health. If there is no such subdivision, enter "None."

Item 3g. Telephone and Fax Numbers

Provide a daytime telephone number and, if available, a fax number.

Item 3h. eRA Commons User Name

If the principal investigator is registered in the <u>eRA Commons</u>, enter the assigned Commons User Name. The Commons User Name is the ID assigned to and used by the individual to access the Commons. This data item is now a required field for all individuals designated as PI.

Multiple Pls

When multiple PIs are proposed, use the Face Page (Continued) page to provide items 3a – 3h for all PIs. NIH requires one PI be designated as the "contact PI" for all communications between the PIs and the agency. The contact PI must meet all eligibility

requirements for PI status in the same way as other PIs, but has no special roles or responsibilities within the project team beyond those mentioned above. The contact PI may be changed during the project period. The contact PI should be listed in block 3 of Form Page 1 (the Face Page), with all additional PIs listed on the Face Page (Continued). When inserting the name of the PD/PI in the header of each application page, use the name of the "Contact PI, et.al."

All individuals designated as PI must be registered in the eRA Commons and must be assigned the PI Role in that system (note other roles such as SO or IAR will not give PI the appropriate access to the application records). Each PD/PI must include their respective eRA Commons ID in the eRA Commons User Name field.

Applicants are reminded that Multiple PIs for applications using the PHS398 are limited only to those responding to specific funding opportunities that clearly indicate Multiple PI as an option. For additional information on this initiative, see:

http://grants.nih.gov/grants/multi_pi/index.htm.

Item 4. Human Subjects Research

Questions in this section pertain to Part II: Supplemental Instructions for Preparing the Human Subjects Section of the Research Plan (MS Word) (PDF).

<u>Does your proposed research involve Human Subjects?</u> See <u>definition</u>.

Research that involves obtaining private information or human biological specimens (such as blood and tissue samples) that can be linked by the investigator(s) to living individuals is considered human subjects research (45 CFR Part 46).

Research that involves only coded private information/data or coded human biological specimens may or may not constitute human subjects research under the HHS human subject regulations (45 CFR Part 46). See Part II: Question1.

No Human Subjects Involved

Check "No" if activities involving human subjects are not planned at any time during the proposed project period. The remaining parts of Item 4 are then not applicable.

Human Subjects Involved

Check "'Yes" if activities involving human subjects are planned at any time during the proposed project period, either at the applicant organization or at any other performance site or collaborating institution. "Yes" should be checked even if the research is exempt from regulations for the protection of human subjects (see Exemption Categories). If the application plans to involve human subjects, but does not have definite plans at the time of application, the principal investigator will need to provide the research plan, including section 7.E "Human Subjects Research," and certification of IRB review and approval, for approval by the awarding component before the research can occur.

<u>Item 4a. Exemptions from Department of Health</u> <u>and Human Services (HHS) Human Subjects</u> <u>Regulations</u>

Does your proposed human subjects research meet the criteria for one or more of the exemptions in the HHS regulations (45 CFR Part 46)?

Check "Yes" if the activities proposed are exempt from the regulations. Insert the exemption number(s) corresponding to one or more of the six exemption categories listed in Part II: Supplemental Instructions for Preparing the Human Subjects Section of the Research Plan (MS Word) (PDF). If the proposed research corresponds to one or more of the exempt categories, then the remaining parts of Item 4 of the Face Page are not applicable.

OHRP guidance states that Exemptions should be independently determined (http://www.hhs.gov/ohrp/humansubjects/guidance/irb71102.pdf). Institutions often designate their IRB to make this determination. Because NIH does not require IRB approval at time of application, the exemptions designated in item 4a often represent the opinion of the PI, and the justification provided for the exemption by the PI is evaluated during peer review.

<u>Human Subjects Activities Not Exempt from HHS</u> Human Subjects Regulations

Check "No" if the planned activities involving human subjects are not exempt, and complete the remaining parts of Item 4.

Item 4b. Human Subjects Assurance Number

If the applicant organization has a current approved Federal Wide Assurance (FWA) on file with the OHRP (http://www.hhs.gov/ohrp/) that covers the specific activity, insert the number in the space provided.

Insert "None" in Item 4b if the applicant organization does not have an approved assurance on file with OHRP. In this case, the applicant organization, by the signature on the Face Page, is declaring that it will comply with 45 CFR Part 46 and proceed to obtain a human subjects assurance (see http://www.hss.gov/ohrp). Do not insert the human subjects assurance number of any collaborating institution in the space provided.

NIH no longer requires IRB approval and certification of the proposed research prior to NIH peer review of an application (see http://grants.nih.gov/grants/guide/notice-files/NOT-OD-00-031.html) and http:/

To assist in filling out items 4c and 4d, see the Human Subjects Research Supplemental Instructions for definitions of <u>clinical research</u> and NIH-defined Phase III clinical trial.

Item 4c. Clinical Trial

<u>Does your proposed research include a clinical trial?</u>

Check "Yes" or "No" to indicate whether the project is a clinical trial.

Item 4d. NIH-Defined Phase III Clinical Trial

<u>Does your proposed research meet criteria for</u> an NIH-Defined Phase III Clinical Trial?

Check "Yes" or "No" to indicate whether the project is an NIH-Defined Phase III clinical trial.

Item 5. Vertebrate Animals

Check "No" if activities involving vertebrate animals are not planned at any time during the proposed project period. The remaining parts of Item 5 are then not applicable.

Check "Yes" if activities involving vertebrate animals are planned at any time during the proposed project period, either at the applicant organization or at any other performance site or collaborating institution. Note that generation of custom antibodies constitutes an activity involving vertebrate animals.

Item 5a. IACUC Verification

NIH no longer requires Institutional Animal Care and Use Committee approval of the proposed research before NIH peer review of an application. See PHS policy section on Vertebrate Animals and http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-064.html. See also the Just-In-Time Policy.

This field is not necessary for application submission. However, the data must be submitted to NIH consistent with the "just-in-time" process prior to award.

If the verification of IACUC approval is not submitted with the application, applicant organizations with "full" Animal Welfare Assurances on file with the Office of Laboratory Animal Welfare (OLAW) should enter "Pending" in the box requesting IACUC approval date. Following NIH peer review, applicants and their institutions will be notified of the need for IACUC review and verification for the proposed animal activity. The verification of IACUC approval from an official signing for the applicant organization must then be sent to and received by the Grants Management Office identified in the notice requesting IACUC verification. This IACUC verification must include: the PHS application number, title of the project, name of principal investigator/program director, institution, Animal Welfare Assurance number, date of IACUC approval, and appropriate signatures.

Any modification of the Research Plan section of the application, required by the IACUC, must be submitted with the follow-up verification. It is the responsibility of the principal investigator/program director and the applicant organization to submit the follow-up verification.

Item 5b. Animal Welfare Assurance

If the applicant organization has a full Animal Welfare Assurance of Compliance on file with the Office of Laboratory Animal Welfare (OLAW), enter the Assurance number of the

applicant organization in Item 5b. (To determine whether your organization holds an Animal Welfare Assurance, see http://grants.nih.gov/grants/olaw/olaw.htm#assur.)

Enter "None" in Item 5b if the applicant organization does not have an approved Animal Welfare Assurance on file with OLAW. Do not enter the Animal Welfare Assurance number of any collaborating institution in the space provided. By inserting "None" and, by the signing on the Face Page, the applicant organization is declaring that it will comply with PHS Policy on Humane Care and Use of Laboratory Animals by submitting an Animal Welfare Assurance and verification of IACUC approval when requested to do so by OLAW.

Item 6. Dates of Proposed Period of Support

Request no more than 5 years of support. Note: Some mechanisms specify fewer years.

<u>New application.</u> Consult the schedule in <u>Table 2 Submission</u>, <u>Review</u>, <u>and Award Cycles</u> for an appropriate beginning date.

Competing continuation/Renewal application.
Choose a beginning date immediately following the termination date of the current period of support.

Supplemental/Revision application. Submit a supplemental/revision application only for a period within the current period of the active grant. At the time of submission, the supplement/revision request must be within the time period of the original (parent) award period, and any extension must be done before submission. Make the ending date of the supplement/revision's first budget period coincide with the ending date of the budget period that is to be supplemented, regardless of the supplement/revision's beginning date. If requesting supplemental/revision funds for the future years of a currently funded grant, make the future years' budget periods coincide with those of the currently funded grant.

BUDGET REQUEST

All amounts requested in Items 7 and 8 and on the budget pages must be in U.S. dollars.

Item 7. Costs Requested for Initial Budget Period

<u>Item 7a. Direct Costs Requested for Initial</u> <u>Budget Period</u>

Non-Modular. From Form Page 4, enter the "Subtotal Direct Costs for Initial Budget Period".

Modular, With Consortium/Contractual Costs. From the Modular Budget Format Page enter the "DC less Consortium F&A" for the initial period only. This figure must be in \$25,000 increments and be ≤ \$250,000.

Modular, Without Consortium/Contractual Costs. From the Modular Budget Format Page enter "Total Direct Costs" for the initial period only. This figure must be in \$25,000 increments and be < \$250,000.

<u>Item 7b. Total Costs Requested for Initial Budget</u> <u>Period</u>

Non-Modular. Enter the sum of: 1) the "Total Direct Costs for Initial Budget Period" from Form Page 4 and 2) the Facilities and Administrative costs for the initial budget period, as calculated on the Checklist Form Page.

Modular, With or Without Consortium/
Contractual Costs. Enter the sum of: 1) the
"Total Direct Costs" for the initial period from
the Modular Budget Format Page and 2) the
Facilities and Administrative costs for the initial
budget period, as calculated on the Checklist
Form Page.

Note the "Total Direct Costs" used to calculate Item 7b includes any consortium F&A costs.

Item 8. Costs Requested for Proposed Period of Support

<u>Item 8a. Direct Costs Requested for Proposed</u> Period of Support

Non-Modular. From Form Page 5, enter the sum of "Subtotal Direct Costs" for all years.

Modular, With Consortium/Contractual Costs. From the Modular Budget Format Page, enter the "Sum Total" of "DC less Consortium F&A" for all years.

Modular, Without Consortium/Contractual Costs. From the Modular Budget Format
Page, enter the "Sum Total" of "Total Direct
Costs" for all years.

<u>Item 8b. Total Costs Requested for Proposed</u> Period of Support

Non-Modular. Enter the sum of: 1) "Total Direct Costs" from Form Page 5; and, 2) the Facilities and Administrative costs for the proposed period of support, as calculated on the Checklist Form Page.

Modular, With or Without Consortium/ Contractual Costs. Enter the sum of: 1) "Sum Total" from the Modular Budget Format Page; and, 2) the Facilities and Administrative costs for the proposed period of support, as calculated on the Checklist Form Page.

Note the "Total Direct Costs" used to calculate Item 8b includes any consortium F&A costs.

Item 9. Applicant Organization

Name the one organization that will be legally and financially responsible for the conduct of activities supported by the award.

Item 10. Type of Organization

Check the appropriate box. See definition in <u>Part III: Policies, Assurances, Definitions and</u> Other Information.

Item 11. Entity Identification Number, DUNS Number, Congressional District

Entity Identification Number. Enter the 12digit Entity Identification Number (EIN) assigned to the applicant organization by the Department of Health and Human Services Payment Management System for payment and accounting purposes. This number is an expansion of the 9-digit EIN assigned by the IRS. If the institution has not yet been assigned a number, enter either (1) the organization's Internal Revenue Service employer identification number (nine digits) or (2) the words Applied for to indicate that the organization does not have an EIN but has applied to the local office of the IRS for one. **DO** NOT ENTER THE PRINCIPAL **INVESTIGATOR'S SOCIAL SECURITY NUMBER,** as it is not appropriate for this item.

Data Universal Numbering System (DUNS) number. Enter the DUNS number. Applicant organizations must provide a DUNS number when applying for Federal grants or cooperative agreements. The DUNS, a Universal Identifier

number, is a nine-digit number assigned by Dun and Bradstreet Information Services. An authorized organizational official should be consulted to determine the appropriate number to enter. If the organization does not have a DUNS number, an authorized organizational official should complete the electronic <u>US D&B D-U-N-S Number Request Form</u> or contact Dun and Bradstreet by telephone directly at **1-866-705-5711 (toll-free)** to obtain one. A DUNS number will be provided immediately by telephone at no charge. Note this is an organizational number. Individual principal investigators do not need to register for a DUNS.

Congressional District. Enter the number of the Congressional District of the applicant organization. To locate your district visit http://congress.org/congressorg/dbq/officials/?lvl=L.

Item 12. Administrative Official to be Notified If Award Is Made

Name the applicant organization administrative official to be notified if an award is made. Provide a complete address for postal delivery and the telephone, fax, and e-mail address for the administrative official.

Item 13. Official Signing for Applicant Organization

Name an individual authorized to act for the applicant organization and to assume the obligations imposed by the Federal laws, requirements, and conditions for a grant or grant application, including the applicable Federal regulations. Provide a complete address for postal delivery and the telephone, fax, and e-mail address for the signing official.

Item 14. Applicant Organization Certification and Acceptance



Read this section carefully

An original signature, in ink, is required. "For" signatures are acceptable; i.e., if the official designated to sign for the applicant organization is not available to sign, only another institutional

official with formal delegated authority to act in his/her behalf may sign as "acting for" such official. However, "Per" signatures (signing as the designated official or without the formal delegation) are not acceptable. The date of signature must be included. In signing the application Face Page, the duly authorized representative of the applicant organization certifies that the applicant organization will comply with all applicable policies, assurances and/or certifications referenced in the application.

The applicant organization is responsible for verifying its eligibility and the accuracy, validity, and conformity with the most current institutional guidelines of all the administrative. fiscal, and scientific information in the application, including the Facilities and Administrative rate. Deliberate withholding, falsification, or misrepresentation of information could result in administrative actions, such as withdrawal of an application, suspension and/or termination of an award, debarment of individuals, as well as possible criminal penalties. The signer further certifies that the applicant organization will be accountable both for the appropriate use of any funds awarded and for the performance of the grant-supported project or activities resulting from this application. The grantee institution may be liable for the reimbursement of funds associated with any inappropriate or fraudulent conduct of the project activity.

Assurances and Certifications

Each application to the PHS requires that the following policies, assurances and/or certifications be verified by the signature of the Official Signing for Applicant Organization on the Face Page of the application. These assurances are explained in Part III: Policies, Assurances, Definitions, and Other Information. Applicants and grantees must comply with a number of additional public policy requirements. Refer to your institution's research grant administrative office or the NIH Grants Policy Statement (available from the NIH website at http://grants.nih.gov/grants/policy/policy.htm) for additional information.

The policies, assurances and certifications listed below may or may not be applicable to your project, program, or type of applicant organization:

Human Subjects Research

Research on Transplantation of Human Fetal <u>Tissue</u>

Research Using Human Embryonic Stem Cells

Women and Minority Inclusion Policy

<u>Inclusion of Children Policy</u>

ClinicalTrials.gov Requirements

Vertebrate Animals

Debarment and Suspension

Drug-Free Workplace

Lobbying

Non-Delinguency on Federal Debt

Research Misconduct

Civil Rights

Handicapped Individuals

Sex Discrimination

Age Discrimination

Recombinant DNA, including Human Gene Transfer Research

Financial Conflict of Interest

Smoke-Free Workplace

Prohibited Research

Select Agent Research

Principal Investigator(s) Assurance

2. DESCRIPTION, PERFORMANCE SITES, KEY PERSONNEL, OTHER SIGNIFICANT CONTRIBUTORS, AND HUMAN EMBRYONIC STEM CELLS

FORM PAGE 2 (MS WORD OR PDF)

Do NOT insert additional pages between Form Page 1 and Form Page 2.

Description: Project Summary and Relevance

The first and major component of the Description is a **Project Summary**. It is meant to serve as a succinct and accurate description of the proposed work when separated from the application. State the application's broad, longterm objectives and specific aims, making reference to the health relatedness of the project (i.e., relevance to the mission of the agency). Describe concisely the research design and methods for achieving the stated goals. This section should be informative to other persons working in the same or related fields and insofar as possible understandable to a scientifically or technically literate reader. Avoid describing past accomplishments and the use of the first person.

The second component of the Description is **Relevance**. Using no more than two or three sentences, describe the relevance of this research to **public** health. In this section, be succinct and use plain language that can be understood by a general, lay audience.

DO NOT EXCEED THE SPACE PROVIDED.

Do not include proprietary, confidential information or trade secrets in the description section. If the application is funded, the project description will be entered into an NIH database (Computer Retrieval of Information on Scientific Projects - CRISP) and will become public information.

Performance Site(s)

Indicate where the work described in the Research Plan will be conducted. If there is more than one performance site, list all the sites, including Department of Veterans Affairs (V.A.) facilities and foreign sites, and provide an explanation on the Resources Format Page of the application. One of the sites indicated must be the applicant organization or be identified as off-site in accordance with the conditions of the applicant organization's negotiated Facilities and Administrative (F&A) agreement. This information must agree with the F&A information on the Checklist Form Page of the application. State whether a consortium/ contractual arrangement is involved with one or more collaborating organizations for the conduct of a portion of the work described in the Research Plan.

If a performance site is engaged in research involving human subjects, the applicant organization is responsible for ensuring that the performance site operates under an appropriate OHRP-approved assurance for the protection of human subjects and complies with 45 CFR Part 46 and other NIH human subject related policies described in the PHS 398 and GPS.

For research involving vertebrate animals, the applicant organization must ensure that all performance sites hold OLAW-approved assurances.

Key Personnel

In addition to the principal investigator(s) (PIs), Key Personnel are defined as individuals who contribute to the scientific development or execution of the project in a substantive, measurable way, whether or not salaries are requested.

Typically, these individuals have doctoral or other professional degrees, although individuals at the masters or baccalaureate level should be included if their involvement meets the definition of Key Personnel. **Consultants** should also be included if they meet the same definition.

Key Personnel must devote measurable effort (in person months) to the project whether or not salaries are requested. "Effort of zero person months" or "as needed" are not acceptable levels of involvement for those designated as Key Personnel.

Start with the principal investigator(s). List the principal investigator's last name first. When multiple PIs are proposed, list the contact PI first, then all additional PIs in alphabetical order. Then all other Key Personnel should be listed in alphabetical order, last name first. For each individual provide name, eRA Commons User Name (if known), organization name (their institutional affiliation), and role on the project. Under role on the project, indicate how the individual will function on the proposed project. Use additional consecutively numbered pages as necessary.

Other Significant Contributors. This category identifies individuals who have committed to contribute to the scientific development or execution of the project, but are not committing

any specified measurable effort (in person months) to the project. These individuals are typically presented at "effort of zero person months" or "as needed" (individuals with measurable effort cannot be listed as Other Significant Contributors). Consultants should be included if they meet this definition. This would also be an appropriate designation for mentors on Career awards.

A biosketch, including Research Support information, will be required for these individuals as this highlights their accomplishments as scientists. Reviewers use these pages to address the "investigator" review criterion.

However, if an award is to be made, Other Support information will not be required or accepted since considerations of overlap do not apply to these individuals.

Should the level of involvement change for an individual listed in this category, they should be redesignated as "key personnel." This change should be made before any compensation is charged to the project.

Human Embryonic Stem Cells

If the proposed project involves human embryonic stem cells, list in this section the registration number of the specific cell line(s) from the stem cell registry found at: http://stemcells.nih.gov/registry/index.asp. Use continuation pages as needed. If a specific line cannot be referenced at the time of application submission, include a statement that one from the registry will be used.

3. RESEARCH GRANT TABLE OF CONTENTS

FORM PAGE 3 (MS WORD OR PDF)

Provide the page number for each category listed on the Table of Contents. Place page numbers at the bottom of each page, and consecutively number pages throughout the application. Do not include unnumbered pages, and do not use suffixes, such as 5a, 5b.

4. BUDGET INSTRUCTIONS MODULAR FORMAT

The following instructions are applicable to certain research grant applications requesting \$250,000 or less per year for direct costs. Modular budgets are simplified; therefore, detailed categorical information is not to be submitted with the application.

Note consortium/contractual F&A costs are not factored into this DC limit. They may be requested in addition to the \$250.000 limit.

- Applicable only to R01, R03, R15, and R21 applications.
- Use for research grant applications requesting \$250,000 or less in direct costs, exclusive of any consortium F&A costs.
- Submit only the Modular Budget Format Page (MS WORD or PDF).
- Do not submit Form Pages 4 and 5. Use these as internal "worksheets" only in the development of the total direct costs to be shown on the Modular Budget Format Page and in Item 7a of the Face Page.
- Refer to the Modular Budget Samples:

Same Modules each year MS Word or PDF

Variable Modules each year MS Word or PDF

Direct Costs.

Modular, With Consortium/Contractual Costs. On the Modular Budget Format Page, enter separately the Direct Costs less (actual) Consortium F&A, actual Consortium F&A, and Total Direct Costs requested for each year. The budget figures from the "DC less Consortium F&A" row are used for Face Page Items 7a. and 8a. When consortium/contractual costs are involved, the figures for each year in the "DC less Consortium F&A" row must be in \$25,000 increments and < \$250,000.

Modular, Without Consortium/Contractual Costs. If your budget does not include

consortium/contractual costs complete only the "Total Direct Costs" row. From this row, use "Initial Period" figure for Face Page Item 7a, and "Sum Total" figure for Face Page Item 8a. When no consortium/contractual costs are involved, the figures for each year in the "Total Direct Costs" row must be in \$25,000 increments and < \$250,000.

For all modular budgets, request total direct costs (in **modules of \$25,000** as described above), reflecting appropriate support for the project. There will be no future year escalations. A typical modular grant application will request the same number of modules in each year. Provide an additional narrative budget justification for any variation in the number of modules requested.

NIH may request (prior to award) additional budget justification in exceptional circumstances. For further information, see http://grants.nih.gov/grants/funding/modular/modular.htm and http://grants.nih.gov/grants/funding/modular/modular-review.htm.

Budget Justification.

Personnel. List all personnel, including names, number of person months devoted to the project (indicate academic, calendar, and/or summer), and roles on the project. No individual salary information should be provided. Since the modules should be a reasonable estimate of costs allowable, allocable, and appropriate for the proposed project, applicants must use the current legislatively imposed salary limitation when estimating the number of modules. For guidance on current salary limitations, see the NIH Guide for Grants and Contracts on the NIH grants website or contact your office of sponsored programs.

NIH grants also limit the compensation for graduate students. Compensation includes salary or wages, fringe benefits and tuition remission. This limit should also be used when estimating the number of modules. See: http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-017.html.

Consortium/contractual costs. Provide an estimate of total costs (direct plus Facilities and Administrative) for each year, rounded to the

nearest \$1,000. List the individuals/ organizations with whom consortium or contractual arrangements have been made. List all personnel, including number of person months and roles on the project. No individual salary information should be provided. Indicate whether the collaborating institution is foreign or domestic. While only the direct cost for a consortium/contractual arrangement is factored into eligibility for using the modular budget format, the **total** consortium/contractual costs must be included in the overall requested modular direct cost amount.

While all NIH ICs use modular formats, not all of the other PHS agencies accept modular budgets. If you are submitting an application to an agency other than NIH, be sure to read the instructions in the funding announcement to determine whether the application should be submitted in the modular format, or contact an official at the appropriate PHS awarding component (see <u>Agency Contact Table</u>).

NON-MODULAR FORMAT

The following instructions are applicable to all applications requesting more than \$250,000 direct costs per year. Note consortium/ contractual F&A costs are no longer factored into this DC limit. If you exceed the \$250,000 level by only the amount of consortium F&A costs, you are still required to use the modular format. Detailed categorical budget information for preparing the budget for the "Initial Budget Period" and the "Entire Proposed Period of Support" is to be submitted with the application.

- Use for research grant applications requesting more than \$250,000 direct costs per year, exclusive of consortium F&A costs.
- Submit Form Page 4 and Form Page 5.
- If you are requesting a budget of \$500,000 direct costs or more for any year, you must obtain prior approval from Institute/Center staff. Note this limit is exclusive of any consortium F&A costs. If the "Subtotal Direct Costs" on Form Page 5 equals or exceeds \$500,000 in any year, prior approval is required. (See Policy on the Acceptance for Review of Unsolicited Applications

That Request \$500,000 or More in Direct Costs.)

- Form Page 4 reflects the total direct costs, which includes the total costs of any contractual costs, requested for the initial (first 12 months) budget period. (F&A costs are requested on the Checklist Page.)
- Form Page 5 reflects the total direct costs for the *entire* project period. This form also is used to prepare the narrative budget justification.
- Submit a separate detailed budget (Form Page 4) for each participating consortium/contractual organization. For each, label that page accordingly. If consortium activity exceeds one year, also include Form Page 5. See Consortium/Contractual Costs for specific instructions.

If the proposed budget is \$250,000 direct costs per year or less (excluding any consortium F&A costs), skip the following instructions for Form Page 4 and Form Page 5. Use the 'Modular Budget Format Page' only and follow the specific Budget Instructions for Modular Grant Applications.

DETAILED BUDGET FOR INITIAL BUDGET PERIOD

FORM PAGE 4 (MS WORD OR PDF)

Each item listed on Form Page 4 must be clearly justified on Form Page 5. List only the direct costs requested in this application. Do not include any items that are treated by the applicant organization as Facilities and Administrative (F&A) costs according to a Federal rate negotiation agreement, except for those F&A costs included in consortium/contractual costs.

The following items pertain individually to the completion of Form Page 4 (Detailed Budget for Initial Budget Period – Direct Costs Only).

Personnel

Name. Starting with the principal investigator(s), list the names of all applicant organization employees who are involved on the project during the initial budget period, regardless of whether a

salary is requested. Include all collaborating investigators, individuals in training, and support staff.

Role on Project. Identify the role of each individual listed on the project. Describe their specific functions under Justification on Form Page 5. Provide budget narrative for ALL personnel by position, role, and level of effort using person months (calendar, academic and/or summer). This includes any "to-be-appointed" positions.

Months Devoted to Project. Enter the number of months devoted to the project. Three columns are provided depending on the type of appointment being reflected, academic, calendar, and/or summer months. Individuals may have consecutive appointments within a calendar year, for example for an academic period and a summer period. In this case, each appointment should be identified separately using the corresponding column.

If effort does not change throughout the year, use only the calendar months column. If effort varies between academic and summer months, leave the calendar months column blank and use only the academic and summer months columns. In cases where no contractual appointment exists with the applicant organization and salary is requested, enter the number of months for the requested period.

Institutional Base Salary. An applicant organization may choose to leave this column blank. However, PHS staff will require this information prior to award. See Definitions in Part III: Policies, Assurances, Definitions and Other Information.

Salary Requested. Regardless of the number of months being devoted to the project, indicate only the amount of salary being requested for this budget period for each individual listed.

Some PHS grant programs are currently subject to a legislatively imposed salary limitation. Any adjustment for salary limits will be made at the time of award. For guidance on current salary limitations, see the <u>Salary Cap Summary</u> on the NIH grants

Web site or contact your office of sponsored programs.

NIH grants also limit the compensation for graduate students. Compensation includes salary or wages, fringe benefits and tuition remission. While actual institutional-based compensation should be requested and justified, this may be adjusted at the time of the award. For more guidance on this policy, see: http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-017.html.

Fringe Benefits. Fringe benefits may be requested in accordance with institutional guidelines for each position, provided the costs are treated consistently by the applicant organization as a direct cost to all sponsors.

Totals. Calculate the totals for each position and enter the subtotals in each column where indicated.

The applicant organization and its subcontractor(s) may omit salaries and fringe benefits for individuals from copies of the application that are available to non-Federal reviewers. In such cases, replace the numbers with asterisks. You must show the subtotals. Provide one copy, for use only by PHS staff, with the asterisks replaced by the salaries and fringe benefits.

Special Instructions: Joint University and Department of Veterans Affairs (V.A.) Appointments

Individuals with joint university and V.A. appointments may request the university's share of their salary in proportion to the effort devoted to the research project. The individual's salary with the university determines the base for computing that request. Signature by the institutional official on the application certifies that: (1) the individual is applying as part of a joint appointment specified by a formal Memorandum of Understanding between the university and the V.A.; and (2) there is no possibility of dual compensation for the same work, or of an actual or apparent conflict of interest regarding such work. Additional information may be requested by the awarding components.

Consultant Costs

Whether or not costs are involved, provide the names and organizational affiliations of all consultants, other than those involved in consortium/contractual arrangements. Include consultant physicians in connection with patient care and persons who are confirmed to serve on external monitoring boards or advisory committees to the project. Describe the services to be performed on Form Page 5 under "Justification." Include the number of days of anticipated consultation, the expected rate of compensation, travel, per diem, and other related costs.

Equipment

List each item of equipment with amount requested separately and justify each purchase on Form Page 5.

Supplies

Itemize supplies in separate categories, such as glassware, chemicals, radioisotopes, etc. Categories in amounts less than \$1,000 do not have to be itemized. If animals are to be purchased, state the species and the number to be used.

Travel

Itemize travel requests and justify on Form Page 5. Provide the purpose and destination of each trip and the number of individuals for whom funds are requested.

Patient Care Costs

If inpatient and/or outpatient costs are requested, provide the names of any hospitals and/or clinics and the amounts requested for each on Form Page 5.

State whether each hospital or clinic has a currently effective DHHS-negotiated research patient care rate agreement and, if not, what basis is used for calculating costs. If an applicant does not have a DHHS-negotiated rate, the PHS awarding component can approve a provisional rate. Indicate, in detail, the basis for estimating costs in this category, including the number of patient days, estimated cost per day, and cost per test or treatment. If both inpatient and outpatient costs are requested, provide information for each

separately. If multiple sites are to be used, provide detailed information by site.

Include information regarding projected patient accrual for the project/budget periods and relate this information to the budget request for patient care costs. If patient accrual is anticipated to be lower at the start or during the course of the project, plan budget(s) accordingly.

Provide specific information regarding anticipated sources of Other Support for patient care costs, e.g., third party recovery or pharmaceutical companies. Include any potential or expected utilization of General Clinical Research Centers.

Alterations and Renovations

Itemize by category and justify on Form Page 5 the costs of essential alterations and renovations including repairs, painting, removal or installation of partitions, shielding, or air conditioning. Where applicable, provide the square footage and costs. Costs for alterations and renovations are not allowed on grants made to foreign organizations or to foreign components on grants to domestic institutions.

Other Expenses

Itemize any other expenses by category and unit cost. These might include animal maintenance (unit care costs and number of care days), patient travel, patient participation incentives, donor fees, publication costs, computer charges, rentals and leases, equipment maintenance, service contracts, and tuition remission when budgeted separately from salary/fringe benefits. Justify costs on Form Page 5.

Consortium/Contractual Costs

Each participating consortium/contractual organization must submit a separate detailed budget for both the initial budget period (Form Page 4) and the entire proposed project period (Form Page 5).

Consortium arrangements may involve personnel costs, supplies, and other allowable costs, including Facilities and Administrative (F&A) costs. Contractual costs for support services, such as the laboratory testing of biological materials, clinical services, or data processing, are occasionally sufficiently high to

warrant a similar categorical breakdown of costs.

For each supplementary budget, leave the "Consortium/Contractual Direct Costs" category blank and use the "Subtotal Direct Costs" category to total the consortium direct costs. When F&A costs are requested by a consortium organization, enter those costs in the "Consortium/Contractual F&A Costs" category for each supplementary budget. Provide the F&A cost base and rate information in the budget justification section. The "Total Direct Costs for Initial Budget Period" category can be used for the consortium/contractual Total Costs (Direct Costs plus F&A).

For the applicant organization budget, list the sum of all consortium/contractual costs (direct and F&A). Insert additional page(s) after Form Page 5, numbering them sequentially. (Do not use 5a, 5b, 5c, etc.)

Budget Totals for Applicant Organization

For Face Page Item 7a, use the "Subtotal Direct Costs for Initial Budget Period" on Form Page 4.

For Face Page Item 7b, add together the "Total Direct Costs" from Form Page 4 and the F&A costs calculated for the initial budget period on the Checklist Page.

For Face Page Item 8a, total the "Subtotal Direct Costs" for all years on Form Page 5.

For Face Page Item 8b, add together the "Total Direct Costs for Entire Proposed Project Period" on Form Page 5 and the Total F&A costs for all years calculated on the Checklist Page.

Supplemental/Revision Application

For a supplemental/revision application, show only those items for which additional funds are requested. If the initial budget period of the supplemental/revision application is less than 12 months, prorate the personnel costs and other appropriate items of the detailed budget.

Foreign Justification

If the applicant organization is a foreign institution or if your project includes a foreign component, provide a justification on Form

Page 5 or, for Modular Applications, on the Modular Budget Format Page. Describe special resources or characteristics of the research project (e.g., human subjects, animals, disease, equipment, and techniques), whether similar research is being done in the United States and whether there is a need for additional research in this area. For a definition of a substantial foreign component, see Definitions, and Other Information.

BUDGET FOR ENTIRE PROPOSED PERIOD OF SUPPORT

FORM PAGE 5 (MS WORD OR PDF)

Enter in the first column the budget category totals of the initial budget period costs from Form Page 4.

Enter the totals under each budget category for all additional years of support requested. Identify with an asterisk (*), and justify any significant increases or decreases from the initial year budget. Also, justify budgets with more than a standard escalation from the initial to the future year(s) of support.

5. BIOGRAPHICAL SKETCH

FORMAT PAGE (MS WORD OR PDF)

Follow the instructions on the Biographical Sketch Format Page. This section must contain the biographical sketches of all **Key Personnel and Other Significant Contributors**, including consultants, following the order as listed on Form Page 2.

If the individual is registered in the eRA Commons, include the assigned Commons User Name. This data item is currently optional. (For information on the eRA Commons, see https://commons.era.nih.gov/commons/index.jsp.)

Use the sample *format* on the Biographical Sketch Format Page to prepare this section for **all** (modular *and* other) grant applications.

The Biographical Sketch may not exceed four pages. See sample MS Word or PDF. This 4-page limit includes the table at the top of the first page.

Complete the educational block at the top of the format page, and complete sections A, B, and C.

- A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.
- B. Selected peer-reviewed publications or manuscripts in press (in chronological order). Do not include manuscripts submitted or in preparation. For publicly available citations, URLs or PMC submission identification numbers may accompany the full reference. Note copies of these publications are no longer accepted as appendix material.
- C. Research Support. List both selected ongoing and completed (during the last three years) research projects (Federal or non-Federal support). Begin with the projects that are most relevant to the research proposed in this application.

 Briefly indicate the overall goals of the projects and responsibilities of the key person identified on the Biographical Sketch. Note: Do not include number of person months or direct costs.

Don't confuse "Research Support" with "Other Support." Though they sound similar, these parts of the application are very different. As part of the biosketch section of the application, "Research Support" highlights your accomplishments, and those of your colleagues, as scientists. This information will be used by the reviewers in the assessment of each individual's qualifications for a specific role in the proposed project, as well as to evaluate the overall qualifications of the research team. In contrast, "Other Support" information is required for all applications that are selected to receive grant awards. NIH staff will request complete and up-to-date "other support" information from you after peer review. This information will be used to check that the proposed research has not already been Federally-funded.

Information on Other Support beyond that required in the biographical sketch should NOT be submitted with the application. Otherwise, the application processing may be delayed or the application may be returned to the applicant without review. For additional information and policy on Other Support, see Part III: Policies, Assurances, Definitions and Other Information.

6. RESOURCES

FORMAT PAGE (MS WORD OR PDF)

Follow the sample format and instructions on the Resources Format Page when completing information on resources available for the project. If there are multiple performance sites, then resources available at each site should be described. In describing the scientific environment in which the work will be done, discuss ways in which the proposed studies will benefit from unique features of the scientific environment, or subject populations, or employ useful collaborative arrangements. If research involving Select Agent(s) will occur at any performance site(s), the biocontainment resources available at each site should be described.

7. RESEARCH PLAN

No Specific Form Page Use Continuation Page (MS Word | PDF)

The Research Plan should include sufficient information needed for evaluation of the project, independent of any other document (e.g., previous application). The format for preparing this section is provided below. Be specific and informative, and avoid redundancies. For grant writing tips, see

http://grants.nih.gov/grants/grant_tips.htm.

Introduction (Revised/Resubmission or Supplemental/Revision Applications Only)

Refer to the section on Revised/Resubmission Applications. All revised/resubmission (amended) and supplemental/revision applications must include an Introduction. The Introduction may not exceed three pages for revised/resubmission applications or one page for supplemental/revision applications. Insert the Introduction at the very beginning of the Research Plan.

Page Limitations

Do not exceed 25 pages for *Items A-D.* All tables, graphs, figures, diagrams, and charts must be included within the 25-page limit. Be succinct and remember that there is no requirement to use all 25-pages allotted to *Items A-D* of the Research Plan.

Follow page limitations as specified in PAs and RFAs.

Do not include photographs or other materials that are not printed <u>directly</u> on the application page in the body of the application. Pictures or other materials that are glued or taped onto application pages are incompatible with the current duplication/scanning process.

Full-sized glossy photographs of material such as electron micrographs or gels may be included in the Appendix; however, a photocopy of each must also be included within the page limitations of the Research Plan (see Section I.C.8 Appendix).

All applications and proposals for NIH funding must be self-contained within specified page limitations. Unless otherwise specified in an NIH solicitation, Internet website addresses (URLs) may not be used to provide information necessary to the review because reviewers are under no obligation to view the Internet sites. Moreover, reviewers are cautioned that they should not directly access an internet site as it could compromise their anonymity.

The 25-page limit will be strictly enforced. Application processing may be delayed or the application may be returned to the applicant without review.

Notice of Proprietary Information

Applicants are discouraged from submitting information considered proprietary unless it is deemed essential for proper evaluation of the application. However, when the application contains information that constitutes trade secrets, or information that is commercial or financial, or information that is confidential or privileged, identify the pages in the application that contain this information by marking those paragraphs or lines with an asterisk (*) in the left-hand margin and providing the page numbers before "A. Specific Aims" in the Research Plan.

When information in the application constitutes trade secrets or information that is commercial or financial, or information that is confidential or privileged, it is furnished to the Government in confidence with the understanding that the information shall be used or disclosed only for evaluation of this application. If a grant is awarded as a result of or in connection with the submission of this application, the Government shall have the right to use or disclose the information to the extent authorized by law. This restriction does not limit the Government's right to use the information if it is obtained without restriction from another source.

Content of Research Plan

The PHS recommends the following format and page distribution. Organize *Items A-D* of the Research Plan to answer these questions: What do you intend to do? Why is the work important? What has already been done? How are you going to do the work?

Do not exceed 25 pages for Items A-D, including all tables and figures.

A. Specific Aims

List the broad, long-term objectives and the goal of the specific research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology. **One page is recommended.**

B. Background and Significance

Briefly sketch the background leading to the present application, critically evaluate existing knowledge, and specifically identify the gaps that the project is intended to fill. State concisely the importance and health relevance of the research described in this application by relating the specific aims to the broad, long-term objectives. If the aims of the application are achieved, state how scientific knowledge or clinical practice will be advanced. Describe the effect of these studies on the concepts, methods, technologies, treatments, services or preventative interventions that drive this field.

Two to three pages are recommended.

C. Preliminary Studies/Progress Report

Preliminary Studies. For new applications, use this section to provide an account of the principal investigator/program director's preliminary studies pertinent to this application, including his/her preliminary experience with and outreach to the proposed racial/ethnic group members. This information will also help to establish the experience and competence of the investigator to pursue the proposed project.

Except for Exploratory/Development Grants (R21/R33), Small Research Grants (R03), and Phase I Small Business Research Grants (R41/R43), peer review committees generally view preliminary data as an essential part of a research grant application. Preliminary data often aid the reviewers in assessing the likelihood of the success of the proposed project.

Progress Report for Competing Continuation/Renewal and Supplemental/Revision Applications. A Progress Report must be provided for competing continuation/renewal and supplemental/revision applications. Provide the beginning and ending dates for the period covered since the project was last reviewed competitively. Summarize the previous application's specific aims and the importance of the findings. Discuss any changes in the specific aims as a result of budget reductions. Include the title and complete references to all appropriate publications, manuscripts accepted for publication, patents, and other printed materials that have resulted from the project since it was last reviewed competitively. This list is not part of the page limitations. For publicly available citations, URLs or PMC submission identification numbers may accompany the full reference. Note copies of these publications are no longer accepted as appendix material.

As part of the Appendix material you may include only up to 3 of the following types of publications:

 Manuscripts and/or abstracts accepted for publication but not yet published: The entire article should be submitted and may be stapled.

- Manuscripts and/or abstracts published but a free, online, publicly available journal link is not available: The entire article should be submitted and may be stapled.
- Patents directly relevant to the project: The entire document should be submitted and may be stapled.

(Do not include unpublished theses, or abstracts/manuscripts **submitted** (but not yet accepted) for publication.)

Note, publications and/or abstracts in press should no longer be included in the appendix material. Include the URL or PMC submission identification numbers along with the full reference in the Literature Cited section, the Progress Report for Competing Renewals section, and/or the Biographical Sketch section.

See <u>Section I.C.8</u> for more details on Appendix material.

If the competing continuation/renewal or supplemental/revision application involves clinical research, then you must report on the enrollment of research subjects and their distribution by ethnicity/race and sex/gender.

See "What Form Should PIs Use for Population Tracking? (New Versus Old)" (PDF or MS Word) for more detailed instructions on which Target and Enrollment Report or Table to use.

Provide a succinct account of published and unpublished results, indicating progress toward their achievement.

In the *Progress Report for the Competing Continuation/Renewal and Supplemental/Revision Applications*, the publications portion and/or any Target and Enrollment Reports/Tables are not included in the 25-page limit.

Six to eight pages are recommended for the narrative portion of the Preliminary Studies/ Progress Report.

D. Research Design and Methods

Describe the research design conceptual or clinical framework, procedures, and analyses to be used to accomplish the specific aims of the project. Unless addressed separately in Section

i, include how the data will be collected, analyzed, and interpreted as well as the data-sharing plan as appropriate. Describe any new methodology and its advantage over existing methodologies. Describe any novel concepts, approaches, tools, or technologies for the proposed studies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims. As part of this section, provide a tentative sequence or timetable for the project. Point out any procedures, situations, or materials that may be hazardous to personnel and the precautions to be exercised.

Although no specific number of pages is recommended for the Research Design and Methods section, be as succinct as possible. There is no requirement that all 25 pages allotted for *items A-D* be used.

E. Human Subjects Research

The following human subject information applies even if you are obtaining specimens from collaborators or if you are subcontracting the human research to another organization.

Also refer to Part II of the PHS 398: <u>Supplemental</u> <u>Instructions for Preparing the Human Subjects Section of the Research Plan</u> if your proposed research will involve human subjects.

For all research involving human subjects, a part of the peer review process will include careful consideration of protections from research risks, as well as the appropriate inclusion of women, minorities, and children. The Scientific Review Group (SRG) will assess the adequacy of safeguards of the rights and welfare of research participants, and the appropriate inclusion of women, minorities, and children, based on the information in the application. This evaluation will be a part of the Approach criterion. The evaluation of the inclusion plans will be factored into the overall score that the SRGs award for scientific and technical merit of the application.

Much of the information on the protection of human subjects that you are required to provide in this section of the PHS 398 is identical to information that you will be required to provide for IRB review at your own institution. The research described in your application may include more than one research project; thus the application may include individual projects that meet the requirements for non-exempt or exempt human subjects research, or are not defined as human subjects research.

If research activities involving human subjects are planned at any time during the proposed project period, either at the applicant organization or at any other performance site or collaborating institution, then your answer is "Yes" even if the research is exempt from regulations for the protection of human subjects.

To assist you in filling out this section of the application, a Decision Table is provided below that presents six possible scenarios, and links to instructions for providing information on human subjects protection from research risks, and the inclusion of women, minorities and children. All research projects will fall into one of these six scenarios.

Determining which scenario best matches your proposed research depends on your answers to the following five questions:

Question 1: Does your proposed research involve human subjects?

Question 2: Does your proposed human subjects research meet the criteria for one or more of the exemptions in the HHS Regulations (45 CFR Part 46)?

Question 3: Does your proposed research meet the definition of Clinical Research?

Question 4: Does your proposed research include a Clinical Trial?

Question 5: Does your proposed research meet criteria for an NIH-Defined Phase III Clinical Trial?

Click on the questions, and when you have the answer for the five questions proceed to the table above, and select the scenario that best matches your responses. Follow the instructions provided for the scenario you choose. If you need additional guidance then click on the questions, the column heading in the table below, or links within the scenario and

you will be provided additional information and guidance.

For Clinical Research, place the Target/Planned Enrollment Table(s) under the heading "Inclusion of Women and Minorities," immediately in front of the heading "Inclusion of Children." See <u>Supplemental Instructions for</u>

<u>Preparing the Human Subjects Section of the Research Plan.</u>

When you have completed this section of the application proceed to <u>Section F. Vertebrate</u> <u>Animals.</u>

DECISION TABLE FOR HUMAN SUBJECTS RESEARCH, PROTECTION AND THE INCLUSION OF WOMEN, MINORITIES, AND CHILDREN

	Criteria and Answers to Questions 1 thru 5				
Scenarios with linked instructions	1. Human Subjects Research	2. Exempt from HHS Human Subjects Regulations	3. Clinical Research	4. Clinical Trial	5. NIH-Defined Phase III Clinical Trial
<u>A</u> No Human Subjects	No	N/A	N/A	N/A	N/A
Requirements for So If Human Subjects is		cenarios B-F below.			
<u>B</u> <u>Human</u> Subjects/E-4	Yes	Yes Exemption: 4	No	N/A	N/A
Requirements for So		nclude justification that E-	∕ is appropriate		
C Human Subjects/ Other Exemptions	Yes	Yes Exemptions: 1, 2, 3, 5, 6	Yes	N/A	N/A
Requirements for So - Indicate Exemption - Address "Inclusion - Address "Inclusion D	n number(s) an of Women and of Children"	I			
Clinical Research	Yes	No	Yes	No	N/A
Continuation/Renew - "Inclusion Enrollme Supplements/Revision	of Human Su of Women and of Children" Enrollment Tab ral applications ent Report Tab		s/Revisions)		mpeting
E Clinical Trials	Yes	No	Yes	Yes	No
Requirements for Sc - All requirements in - Data and Safety M	Scenario D onitoring Plan	and ClinicalTrials.gov red Data and Safety Monitorir		on risk	
E NIH-Defined Phase III Clinical Trial	Yes	No	Yes	Yes	Yes
Requirements for So - All requirements in Increased requirements	Scenario E	on of Women and Minorit	ies in Clinical Re	esearch	

Relevant Human Subjects Research policies and information:

Protection of Human Subjects (45 CFR Part 46)

Required Education in the Protection of Human Research Participants

Inclusion of Women and Minorities in Clinical Research

NIH Policy on Inclusion of Children

NIH Policy on Reporting Race and Ethnicity
Data: Subjects in Clinical Research

Vulnerable Populations

Research Using Human Embryonic Stem Cells

Completing the Population Tracking Tables

ClinicalTrials.gov Requirements

F. Vertebrate Animals.

If you have marked Item 5 on the Face Page of the application "Yes," create a section heading entitled "Vertebrate Animals." Place it immediately following the Research Design and Methods section of the application (or after Item e, if applicable).

Failure to address the following elements will result in the application being designated as incomplete and it will be grounds for the PHS either to defer the application from the peer review round or to potentially negatively affect the application's priority score.

Under the Vertebrate Animals heading address the following five points. In addition, when research involving vertebrate animals will take place at collaborating site(s) or other performance site(s), provide this information before discussing the five points. Although no specific page limitation applies to this section of the application, be succinct.

- Provide a detailed description of the proposed use of the animals in the work outlined in the Research Design and Methods section. Identify the species, strains, ages, sex, and numbers of animals to be used in the proposed work.
- Justify the use of animals, the choice of species, and the numbers to be used. If animals are in short supply, costly, or to

- be used in large numbers, provide an additional rationale for their selection and numbers.
- 3. Provide information on the veterinary care of the animals involved.
- 4. Describe the procedures for ensuring that discomfort, distress, pain, and injury will be limited to that which is unavoidable in the conduct of scientifically sound research. Describe the use of analgesic, anesthetic, and tranquilizing drugs and/or comfortable restraining devices, where appropriate, to minimize discomfort, distress, pain, and injury.
- 5. Describe any method of euthanasia to be used and the reasons for its selection. State whether this method is consistent with the recommendations of the Panel on Euthanasia of the American Veterinary Medical Association. If not, present a justification for not following the recommendations.

G. Select Agent Research

Select Agents are hazardous biological agents and toxins that have been identified by HHS or USDA as having the potential to pose a severe threat to public health and safety, to animal and plant health, or to animal and plant products. CDC maintains a list of these agents. See http://www.cdc.gov/od/sap/docs/salist/pdf.

Create a section heading entitled "Select Agent Research" and place it immediately following the Vertebrate Animal section (Section F) of the application.

If the activities proposed in your application involve only the use of a strain(s) of Select Agents which has been excluded from the list of select agents and toxins as per 42 CFR 73.4(f)(5), the Select Agent requirements do not apply. Use Section G to identify the strain(s) of the Select Agent that will be used and note that it has been excluded from this list. The CDC maintains a list of exclusions at http://www.cdc.gov/od/sap/sap/exclusion.htm.

If the strain(s) is not currently excluded from the list of select agents and toxins but you have applied or intend to apply to HHS for an exclusion from the list, use Section G to

indicate the status of your request or your intent to apply for an exclusion and provide a brief justification for the exclusion.

If any of the activities proposed in your application involve the use of Select Agents at any time during the proposed project period, either at the applicant organization or at any other performance site, address the following three points for each site at which Select Agent research will take place. Although no specific page limitation applies to this section, be succinct.

- 1. Identify the Select Agent(s) to be used in the proposed research.
- 2. Provide the registration status of all entities* where Select Agent(s) will be used.
 - If the performance site(s) is a foreign institution, provide the name(s) of the country or countries where Select Agent research will be performed.

*An "entity" is defined in 42 CFR 73.1 as "any government agency (Federal, State, or local), academic institution, corporation, company, partnership, society, association, firm, sole proprietorship, or other legal entity."

- 3. Provide a description of all facilities where the Select Agent(s) will be used.
 - Describe the procedures that will be used to monitor possession, use and transfer of Select Agent(s).
 - Describe plans for appropriate biosafety, biocontainment, and security of the Select Agent(s).

If you are responding to a specific funding opportunity announcement (e.g., PA or RFA), address any requirements specified by the solicitation.

Reviewers will assess the information provided in this Section, and any questions associated with Select Agent research will need to be addressed prior to award.

H. Literature Cited.

List all references. The list may include, but may not replace, the list of publications required

in the Progress Report for competing continuation/renewal applications.

Each reference must include the title, names of all authors, book or journal, volume number, page numbers, and year of publication. For publicly available citations, URLs or PMC submission identification numbers may accompany the full reference. Note copies of these publications are no longer accepted as appendix material.

The reference should be limited to relevant and current literature. While there is not a page limitation, it is important to be concise and to select only those literature references pertinent to the proposed research.

I. Multiple Project Directors/Principal Investigators (PDs/Pls) Leadership Plan

For applications designating multiple PDs/PIs, a leadership plan must be included. A rationale for choosing a multiple PD/PI approach should be described. The governance and organizational structure of the leadership team and the research project should be described, including communication plans, process for making decisions on scientific direction, and procedures for resolving conflicts. The roles and administrative, technical, and scientific responsibilities for the project or program should be delineated for the PDs/PIs and other collaborators.

If budget allocation is planned, the distribution of resources to specific components of the project or the individual PDs/PIs should be delineated in the Leadership Plan. In the event of an award, the requested allocations may be reflected in a footnote on the Notice of Grant Award.

J. Consortium/Contractual Arrangements.

Explain the programmatic, fiscal, and administrative arrangements to be made between the applicant organization and the consortium organization(s). For applications including multiple PIs, this information may be included as part of the Leadership Plan above. If consortium/ contractual activities represent a significant portion of the overall project, explain why the applicant organization, rather than the ultimate performer of the activities, should be the grantee.

The signature of the authorized organizational official on the Face Page signifies that the applicant and all proposed consortium participants understand and agree to the following statement: The appropriate programmatic and administrative personnel of each organization involved in this grant application are aware of the NIH consortium agreement policy and are prepared to establish the necessary inter-organizational agreement(s) consistent with that policy. A separate statement is no longer required.

K. Resource Sharing Plans.

NIH considers the sharing of unique research resources developed through NIH-sponsored research an important means to enhance the value and further the advancement of the research. When resources have been developed with NIH funds and the associated research findings published or provided to NIH, it is important that they be made readily available for research purposes to qualified individuals within the scientific community.

- 1. <u>Data Sharing Plan</u>: Investigators seeking \$500,000 or more in direct costs in any year are expected to include a brief 1-paragraph description of how final research data will be shared, or explain why data-sharing is not possible. Specific FOAs may require that all applications include this information regardless of the dollar level. Applicants are encouraged to read the specific opportunity carefully and discuss data-sharing plans with their program contact at the time they negotiate an agreement with the Institute/Center (IC) staff to accept assignment of their application. See <u>Data-Sharing Policy</u> or http://grants.nih.gov/grants/policy/data sharing/index.htm.
- 2. <u>Sharing Model Organisms</u>: Regardless of the amount requested, all applications where the development of model organisms is anticipated are expected to include a description of a specific plan for sharing and distributing unique model organisms or state appropriate reasons why such sharing is restricted or not possible. See <u>Sharing Model Organisms Policy</u> and <u>NIH Guide NOT-OD-04-042</u>.
- 3. <u>Genome-Wide Association Studies (GWAS)</u>: Regardless of the amount requested, applicants seeking funding for a genome-wide association

study are expected to provide a plan for submission of GWAS data to the NIH-designated GWAS data repository, or provide an appropriate explanation why submission to the repository is not possible. GWAS is defined as any study of genetic variation across the entire genome that is designed to identify genetic associations with observable traits (such as blood pressure or weight) or the presence or absence of a disease or condition. For further information see Policy for Sharing of Data Obtained in NIH Supported or Conducted Genome-Wide Association Studies, NIH Guide NOT-OD-07-088, and http://grants.nih.gov/grants/gwas/.

These descriptions are not included in the Research Plan page limits.

L. Consultants.

Attach appropriate letters here from all individuals confirming their roles in the project and rate/charge for consulting services. **Do not place these letters in the Appendix**.

8. APPENDIX

Do not use the Appendix to circumvent the page limitations of the Research Plan. Graphs, diagrams, tables, and charts that do not need to be in a glossy format to show detail must not be included in the Appendix. Not all grant mechanisms allow publications to be included in the appendix. When allowed there is a limit of 3 publications that are not publicly available (see below for further details and check the FOA for any specific instructions). A summary sheet listing all of the items included in the appendix is encouraged, but not required. When including a summary sheet, it should be included before the first appendix item. Applications that do not follow the appendix requirements may be delayed in the review process.

There are two possible methods for submitting appendix material:

 Applicants are encouraged to send all paper Appendix materials submitted with PHS398 applications on a CD in PDF format. When a CD is provided, only one copy need be submitted. When preparing a CD:

- Use PDF format.
- Label the disk with the PI name and application title.
- If burning a CD-ROM disk on a Mac, please select the ISO 9660 format.
- Do not use compression techniques for the electronic files.
- Do not use password protection, encryption, digital signature and/or digital certification in the PDF files.
- When submitting paper, include five collated sets of all Appendix material, in the same package with the application, following all copies of the application. Identify each item with the name of the principal investigator. Appendix material can be two-sided as appropriate. While the font requirements imposed in the rest of the application do not apply to the Appendix, all material must be clearly legible. Do not intermingle Appendix materials with the application.

New, revised/resubmission, competing continuation/renewal and supplemental/revision applications **may** include the following materials in the Appendix:

- Publications No longer allowed as appendix material except in the circumstances noted below. Applicants may submit up to 3 of the following types of publications:
 - Manuscripts and/or abstracts accepted for publication but not yet published: The entire article should be submitted and may be stapled.
 - Manuscripts and/or abstracts published but a free, online, publicly available journal link is not available: The entire article should be submitted and may be stapled.

 Patents directly relevant to the project: The entire document should be submitted and may be stapled.

Do not include unpublished theses, or abstracts/manuscripts **submitted** (but not yet accepted) for publication.

- Surveys, questionnaires, data collection instruments, clinical protocols, and informed consent documents. These may be stapled as sets.
- Original glossy photographs or color images of gels, micrographs, etc., provided that a photocopy (may be reduced in size) is also included within the 25-page limit of *Items a-d* of the research plan. No photographs or color images may be included in the Appendix that are not also represented within the Research Plan.
- For materials that cannot be submitted on CD (e.g., medical devices, prototypes), applicants should contact the Scientific Review Administrator for instructions following notification of assignment of the application to a study section. Applicants are encouraged to be as concise as possible and submit only information essential for the review of the application.

Publications that are publicly accessible must **not** be included in the appendix. For such publications, the URL or PMC submission identification numbers along with the full reference should be included as appropriate in the Bibliography and References cited section, the Progress Report Publication List section, and/or the Biographical Sketch section.

9. CHECKLIST

<u>CHECKLIST FORM PAGE (MS WORD OR PDF)</u>

Type of Application

Check all that apply.

Inventions and Patents (Competing Continuation/Renewal Applications Only)

If no inventions were conceived or reduced to practice during the course of work under this project, check "No." The remaining parts of the item are then not applicable.

If any inventions were conceived or reduced to practice during the previous period of support, check "Yes." Also indicate whether this information has been reported previously to the PHS or to the applicant organization official responsible for patent matters.

Note: NIH recipient organizations must promptly report inventions to the Extramural Inventions and Technology Resources Branch of the Office of Policy for Extramural Research Administration, OER, NIH, Bethesda, MD 20892-2750, (301) 435-1986. Invention reporting compliance according to regulations at 37 CFR 401.14 is described at http://www.iedison.gov. The grantee is encouraged to submit reports electronically using Interagency Edison (http://www.iedison.gov). See also "Inventions and Patents" in the Policies, Assurances and Definitions and Other Information.

Program Income

If no program income is anticipated during the period(s) for which grant support is requested, so state.

If program income is anticipated, use the format provided. If the application is funded, the Notice of Grant Award will provide specific instructions regarding the use of such income.

Assurances/Certifications

Each application to the PHS requires that the policies, assurances, and certifications listed on the Checklist be verified by the signature of the official signing for the applicant organization on the Face Page of the application.

Facilities and Administrative (F&A) Costs

Indicate the applicant organization's most recent F&A cost rate established with the appropriate DHHS Regional Office, or, in the case of for-profit organizations, the rate established with the Division of Financial Advisory Services (DFAS), NIH. If the applicant

organization does not have a current negotiated rate, it should develop a provisional rate for application purposes, and immediately upon notification that an award will be made, it should submit the provisional F&A cost rate proposal to the appropriation negotiation office. This proposal is to be based on the organization's most recently completed fiscal year in accordance with the principles set forth in the pertinent DHHS guidance for establishing indirect cost rates, and submitted to the appropriate DHHS Regional Office or the DFAS, NIH. If the applicant organization has a current negotiated rate with another Federal agency, the negotiated rate must be adjusted to treat any independent research and development (IR&D) costs in accordance with HHS policy. F&A costs will NOT be paid on construction grants, grants to Federal organizations, grants to individuals, and conference grants. Follow any additional instructions provided for Career Development Awards, Institutional Ruth L. Kirschstein National Research Service Awards, foreign grants, and specialized grant applications.

Special Instructions for Modular Applications

Applicant institutions should calculate the F&A costs using the current negotiated F&A rate, less exclusions, for the initial budget period and all future budget periods. It is not necessary to list the exclusions on the Checklist or anywhere in the application. However, the direct cost base used for the calculation of the F&A costs must be listed for each year. Show rate used in calculation for F&A costs.

10. Personal Data

FORM PAGE (MS WORD OR PDF)

Follow instructions on the form. When multiple Pls are proposed, this form is applicable to all Pls. Place the form(s) at the end of the original application. **Do not copy.**

11. KEY PERSONNEL REPORT

(KEY PERSONNEL FORM PAGE (MS WORD or PDF); for Competing Continuation/Renewal Applications Only)

Use <u>only</u> when requested by the awarding component.

List all Key Personnel, salaried and unsalaried, at the applicant organization or elsewhere, who participated in the project during the current budget period. Include all degrees, role on project, date of birth, number of person months devoted to the project (indicate academic, calendar, and/or summer) and the last four digits of the Social Security number. When requesting this portion of the Social Security numbers from personnel, explain that provision of the Social Security number is voluntary, and the information will be used only for program management purposes.

Individuals designated as "Other Significant Contributors," e.g. those that may contribute to the scientific development or execution of the project, but are not committing any specified measurable effort to the project, should **not** be included in this report unless their involvement has changed so that they now meet the definition of "key personnel."

II. SUBMISSION AND REVIEW OF YOUR APPLICATION

This section provides instructions for assembling your grant application, the application mailing address, and a schedule of the PHS grant application submission, review and award cycles. It also provides an overview of what happens to your application after submission and the peer review process.

Cover letter. Applicants are encouraged to include a cover letter with the application. The letter may contain any of the following information that applies to the application:

- Application title
- Funding Opportunity (PA or RFA title), if you are responding to an NIH initiative
- Request of an assignment and referral to a particular <u>awarding component(s)</u> or <u>Scientific Review Group (SRG)</u>. (The PHS makes the final determination.)
- List of people (e.g., competitors) who should not review your application and why
- Disciplines involved, if multidisciplinary
- Statement that you have enclosed the required NIH IC approval documentation for an application over \$500,000
- Statement that you have enclosed the required NIH institute approval documentation for a Conference Grant or Cooperative Agreement application (R13 or U13)

Submit a complete application. Incomplete applications will be grounds for the PHS to return the application without peer review. An application will be returned if it is illegible, if the instructions were not followed, or if the material presented is insufficient to permit an adequate review.

The application must be complete and accurate at the time of submission as there is no guarantee that the Scientific Review Administrator will accept or the peer reviewers will consider late material.



Similar, Essentially Identical, or Identical Applications

Submissions of identical applications to one or more components of the PHS are not allowed.

The NIH will not accept similar grant applications with essentially the same research focus from the same applicant organization. This includes derivative or multiple applications that propose to develop a single product, process or service that, with non-substantive modifications, can be applied to a variety of purposes. Likewise, identical or essentially identical grant applications submitted by different applicant organizations will not be accepted. Applicant organizations should ascertain and assure that the materials they are submitting on behalf of the principal investigator are the original work of the principal investigator and have not been used elsewhere in the preparation and submission of a similar grant application. Applications to the NIH are grouped by scientific discipline for review by individual Scientific Review Groups and not by disease or disease state. The reviewers can thus easily identify multiple grant applications for essentially the same project. In these cases, application processing may be delayed or the application(s) may be returned to the applicant without review.

Essentially identical applications will not be reviewed except for: 1) individuals submitting an application for an Independent Scientist Award (K02) proposing essentially identical research in an application for an individual research project; and 2) individuals submitting an individual research project identical to a subproject that is part of a program project or center grant application.

A. Number of Copies

Original Plus 5 Copies Submit the **original and five** exact, legible, single-sided photocopies of each application.

The **original** must be signed by an authorized organizational official.

B. Bindings and Packaging

Submit the following materials in one package:

- cover letter;
- original application;
- five copies of the application;
- five sets of paper appendix materials, or one CD of all appendix material in PDF format.

Do NOT include more than one application set (original plus 5 copies and appendices) in each mailing envelope.

The original application. The original application must be single-sided, with the required signature on the Face Page. Do not staple or otherwise bind the original application. Use rubber bands or clips. Assemble the pages in the order specified in the table of contents. Place the Personal Data page at the end of the application; it is not to be duplicated. If appropriate, attach the RFA label provided in the application kit or a facsimile to the Face Page.

Five exact, single-sided copies of the original application. Make the copies after an authorized organizational official has signed the Face Page so that the official's signature is present on the copies. Do not staple or otherwise bind the five copies of the original application. Rubber bands are acceptable.

Five collated sets of paper appendix material. The paper appendix material, and only the appendix material, may be stapled or bound. Do not use notebooks or 3-ring binders. Items should be stapled or bound where appropriate, and each marked with the name of the principal investigator. A summary sheet, listing all of the items included in the Appendix, is encouraged. Paper appendix material can be two-sided as appropriate. While the font requirements imposed in the rest of the application do not apply to the Appendix, all material must be clearly legible.

One CD of PDF appendix material. In lieu of the five collated sets of paper appendix material, applicants are encouraged to send appendix material on a CD in PDF format. When a CD is provided, only one copy need be submitted. When preparing a CD:

- Use PDF format.
- Label the disk with the PI name and application title.
- If burning a CD-ROM disk on a Mac, please select the ISO 9660 format.
- Do not use compression techniques for the electronic files.
- Do not use password protection, encryption, digital signature and/or digital certification in the PDF files.

C. Submission of Supplementary or Corrective Information

Unless specifically required by these instructions (e.g., vertebrate animals verification), do not send supplementary or corrective material after the submission date unless the Scientific Review Administrator of the Scientific Review Group solicits or agrees to accept this information.

D. Application Mailing Address

Use the mailing labels provided at the end of the forms (MS WORD or PDF).

Send the application to the following address, making sure to use the correct ZIP code:

Center for Scientific Review
National Institutes of Health
6701 Rockledge Drive, Suite 1040
MSC 7710
Bethesda, MD 20892-7710
(United States Postal Service (USPS)
Express or Regular mail)
or
Bethesda, MD 20817 (Express/Courier

Non-USPS Service)

The telephone number is (301) 435-0715 TTY (301) 451-0088.

C.O.D. applications will *not* be accepted.

* All applications and other deliveries to the Center for Scientific Review must come either via courier delivery or via the USPS. Applications delivered by individuals to the Center for Scientific Review will not be accepted. For additional information, see http://grants.nih.gov/grants/guide/notice-files/NOT-OD-03-040.html.

There may be additional instructions for submission of responses to RFAs.

E. Application Submission Dates

Application submission dates fall under two different categories including: 1) Standard Postmark/Submission Dates (also known as "send by" dates) which are listed in Table 2, and 2) Special Receipt Dates (also known as "arrive by" dates) which are specified in RFAs and PAs.

Applications submitted for the dates listed in Table 2 will be considered on time if they are sent on or before the appropriate date listed and a proof of mailing is provided. The critical determination is when the application is sent, not when it arrives at NIH. Proof of timely mailing consists of one of the following: a legibly dated U.S. Postal Service postmark or a dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks are not acceptable.

Funding Opportunity Announcements (RFAs and PAs). Applications in response to announcements with special receipt dates, not listed in Table 2, must be received at NIH by the specified date. However, an application received after the deadline may be acceptable if it carries a legible proof-of-mailing date assigned by the carrier not later than 1 week prior to the deadline date. Note: This differs from the procedures for submitting applications for those dates listed in Table 2, which are considered submission or "send by" dates.

Weekend/holiday submission dates. If a submission date falls on a weekend, it will be extended to the following Monday; any time the date falls on a holiday, the submission date will be extended to the following business day. The application will be on time if it is sent on the following business day.

Late applications. Permission is not granted in advance for submission of a late application. Late applications are accepted only in extenuating circumstances. If an application is submitted late, a cover letter explaining the reasons for the delay must be included with the signed, completed application. Late applications are evaluated on an individual basis considering the reasons provided. Contacting the Division of Receipt and Referral in advance will not influence the acceptance of a late applications. For additional information on late applications, see http://grants.nih.gov/grants/guide/notice-files/NOT-OD-06-086.html, dated August 11, 2006.

Submission, Review and Award Cycles

The PHS submission, review, and award schedule for applications using the PHS398 forms and instructions is provided in <u>Table 2</u>. For a complete table of submission dates, refer to the OER Submission Dates/Deadlines website: http://grants.nih.gov/grants/dates.htm.

Applications for some funding mechanisms are now submitted using electronic submission and the SF424 (R&R) application and instructions. For details on mechanisms that have transitioned to electronic submission using the SF424 (R&R) application, see the OER Electronic Submission of Grant Applications website: http://era.nih.gov/ElectronicReceipt/.

For specialized grant applications, consult with the appropriate PHS agency prior to the preparation of an application.

Table 2. Standard Postmark/Submission Dates, Review, and Award Cycles

This table illustrates postmark/submission dates for applications using only the PHS398. Therefore, any reference to funding mechanisms that have been transitioned to electronic submission using the SF424 (R&R) application have been removed.

New Schedule effective January 3, 2007	RECEIPT	RECEIPT	RECEIPT
	CYCLE I	CYCLE II	CYCLE III
Program Project Grants and Center Grants – all P Series** new, renewal, resubmission, revision*	January 25	May 25	September 25
	(old date	(old date	(old date
	Feb. 1)	June 1)	Oct. 1)
Research Grants – R10, R245 new, renewal, resubmission, revision*	January 25 (old date Feb. 1, March 1)	May 25 (old date June 1, July 1)	September 25 (old date Oct. 1, Nov. 1)
Research-Related and Other Programs – all S and G Series, M01 new, renewal, resubmission, revision*	January 25	May 25	September 25
	(old date	(old date	(old date
	Feb. 1)	June 1)	Oct. 1)
Institutional Ruth L. Kirschstein National Research	January 25	May 25	September 25
Service – T Series (Training)***	(old date	(old date	(old date
new, renewal, resubmission, revision*	Jan. 10)	May 10)	Sept. 10)
Research Career Development –all K Series new	Feb. 12	June 12	October 12
	(old date	(old date	(old date
	Feb. 1)	June 1)	Oct. 1)
Research Career Development –all K Series renewal, resubmission, revision*	March 12	July 12	November 12
	(old date	(old date	(old date
	March 1)	July 1)	Nov. 1)
AIDS and AIDS-Related Grants All of the mechanisms cited above new, renewal, resubmission, revision*	May 1	September 1	January 2
	(no change)	(no change)	(no change)

NOTE for all applications:

- RFAs and some PARs have special receipt dates indicated in the specific NIH Guide Announcement.
- * Change in Terminology: The move to electronic applications has brought a change in terminology. The new Grants.gov terminology (included in the table above) corresponds to the traditional NIH terms as follows:

New = New

Resubmission = A Revised or Amended application

Renewal = Competing Continuation

Continuation = Noncompeting Progress Report

Revision = Competing Supplement

- **Program Project and Center Grants Applicants should check with individual ICs since some ICs do not accept P series applications three times a year.
- ***Institutional Research Training Grants (T32) are accepted by many NIH Institutes and Centers (IC) for only one or two of the dates.
- All AIDS and AIDS-related applications (no matter the type) are submitted on the AIDS and AIDS-related dates.

Review and Award Cycles:	Cycle I	Cycle II	Cycle III
Scientific Merit Review	June - July	October - November	February - March
Advisory Council Review		January - February	May - June
Earliest Project Start Date	December	April	July

Note: Awarding components may not always be able to honor the requested start date of an application; therefore, applicants should make no commitments or obligations until confirmation of the start date by the awarding component.

Application Assignment Information

Competing grant applications submitted to the PHS agencies must be submitted through the Division of Receipt and Referral, CSR, NIH unless otherwise stated. Administrative information about the application is entered into a computer system. The application is then assigned to an appropriate Scientific Review Group and Institute(s). Assignment is based on the scientific content of the application using established referral guidelines.

After the submission date, usually within 4 weeks, the following information regarding the grant application will be available in the NIH eRA Commons for viewing by the PD/PI and an authorized organizational official:

- application assignment number;
- name, address, and telephone number of the Scientific Review Administrator of the Scientific Review Group to which the application has been assigned for peer review; and
- assigned Institute/Center contact name and phone number.

If assignment information is not available in the eRA Commons within four weeks of the submission date, contact the Division of Receipt and Referral, Center for Scientific Review (CSR), National Institutes of Health, Bethesda, MD 20892-7720, (301) 435-0715; TTY (301) 451-0088. If there is a change in assignment, you will receive a notification.

All institutions and their PDs/PIs must register in the NIH eRA Commons. User accounts will allow registrants to check quickly the status of current grant applications, including review outcome and other important information. You can start in immediately with STATUS and the administrative functions. PDs/PIs should work with their institutions to make sure they are registered in the eRA Commons. To register in the Commons, go to https://commons.era.nih.gov/commons/registration/registration/structions.jsp. For other information, go to the Commons home page.

Applicant investigators must not communicate directly with any review group member about an application either before or after the review. Failure to strictly observe this policy will create serious breaches of confidentiality and conflicts-of-interest in the peer review process. From the time of assignment to the time the review of your application is complete, you must direct all questions to the Scientific Review Administrator. This individual is in charge of the review group and is identified in the assignment notice that is mailed to you.

F. The Peer Review Process

A description of what happens to your research project grant application after it is received for peer review can be found at the following location:

http://cms.csr.nih.gov/ResourcesforApplicants/Submission+And+Assignment+Process.htm.

Overview

Most applications submitted to the PHS will be reviewed through a two-tier system. The first level of review will be performed by a Scientific

Review Group, often called a study section or review committee. The purpose of the SRG is to evaluate the scientific and technical merit of applications. The SRG does not make funding decisions. Additional detailed information on review procedures for scientific review group meetings is located at:

http://www.csr.nih.gov/guidelines/proc.pdf. The complete listing of <u>Rosters for NIH Scientific</u> <u>Review Groups (SRGs)</u> is available at http://era.nih.gov/roster/index.cfm.

Streamlining

The initial scientific peer review of most research applications also will include a process in which only those applications deemed by the reviewers to have the highest scientific merit, generally the top half of the applications under review, will be discussed at the Scientific Review Group meeting, assigned a priority score, and receive a second level review. Applications in the lower half are not discussed or scored at the Scientific Review Group meetings. This process allows the reviewers to focus their discussion on the most meritorious applications.

SRG members will be instructed to evaluate research applications by addressing five review criteria (see below) and assigning a single, global score for each scored application. The score will reflect the overall impact that the proposed research could have on the field. Requests for Applications (*RFAs*) and other types of grants may have different and/or additional review criteria.

As part of the initial merit review and regardless of whether an application is scored or unscored (streamlined), all applicants will receive a written critique, called a Summary Statement. The Summary Statement represents a combination of the reviewers' written comments and, for non-streamlined applications, it includes the SRA's summary of the members' discussion during the study section meeting as well as the recommendations of the study section, a recommended budget, and administrative notes of special considerations.

Information about charters and membership of SRGs, Councils, and Boards can be obtained from the appropriate agency.

RESEARCH PROJECT EVALUATION CRITERIA

Significance: Does this study address an important problem? If the aims of the application are achieved, how will scientific knowledge or clinical practice be advanced? What will be the effect of these studies on the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Approach: Are the conceptual or clinical framework, design, methods, and analyses adequately developed, well-integrated, well-reasoned, and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative tactics? For applications designating multiple PDs/PIs, is the leadership approach, including the designated roles and responsibilities, governance and organizational structure consistent with and justified by the aims of the project and the expertise of each of the PDs/PIs?

In conducting an evaluation of the scientific assessment of Approach criterion, SRGs will also evaluate the involvement of human/animal subjects, the proposed plans for inclusion of minorities and members of both sexes/genders. The evaluation will be factored into the overall score for scientific and technical merit of the application.

Innovation: Is the project original and innovative? For example: Does the project challenge existing paradigms or clinical practice; address an innovative hypothesis or critical barrier to progress in the field? Does the project develop or employ novel concepts, approaches or methodologies, tools, or technologies for this area?

Investigator: Are the PD/PI(s) and other key personnel appropriately trained and well suited to carry out this work? Is the work proposed appropriate to the experience level of the PD/PI(s) and other researchers? Do the PD/PI(s) and investigative team bring complementary and integrated expertise to the project (if applicable)?

Environment: Do(es) the scientific environment(s) in which the work will be done

contribute to the probability of success? Do the proposed studies benefit from unique features of the scientific environment, or subject populations, or employ useful collaborative arrangements? Is there evidence of institutional support?

While these review criteria are intended for use primarily with unsolicited research project applications (e.g., R01 or P01), to the extent reasonable, they will also form the basis of the review of solicited applications and non-research activities. However, for some activities (e.g., construction grants), use of these criteria as stated may not be feasible.

Note: In addition to the above criteria, the following items will be considered in the determination of scientific merit and the priority score.

Protection of Human Subjects: In conducting peer review for scientific and technical merit, SRGs also will evaluate the involvement of human subjects and proposed protections from research risk relating to their participation in the proposed non-exempt research plan according to the following five review criteria: (1) Risk to subjects, (2) Adequacy of protection against risks (3) Potential benefits of the proposed research to the subjects and others; (4) Importance of the knowledge to be gained; and (5) Data and safety monitoring for clinical trials.

When human subjects are involved in research that involves one of the six categories of research that are exempt under 45 CFR Part 46, the SRG will evaluate the justification for the

exemption and (1) Human Subjects Involvement and Characteristics, and (2) Sources of Materials.

Inclusion of Women, Minorities, and Children: When human subjects are involved in the proposed clinical research, the SRG will also evaluate the proposed plans for inclusion of minorities and members of both sexes/genders, as well as the inclusion of children in clinical research, as part of the scientific assessment of Approach criterion.

Vertebrate animals: As part of the peer review process, the SRG will evaluate the proposed involvement and protection of vertebrate animals as part of the scientific assessment of Approach and Environment criteria and according to the following five points: (1) detailed description of the proposed use of the animals; (2) justification for the use of animals and for the appropriateness of the species and numbers proposed; (3) adequacy of proposed veterinary care; (4) procedures for limiting pain and distress to that which is unavoidable; and (5) methods of euthanasia.

Dual-Level Peer Review

The second level of review will usually be performed by the Advisory Council or Board of the potential awarding component (Institute, Center, or other unit). Council or Board recommendations are based not only on considerations of scientific merit, as judged by the SRGs, but also on the relevance of the proposed study to an Institute/Center's mission, programs and priorities.

INDIVIDUAL RESEARCH CAREER DEVELOPMENT AWARD (CDA) APPLICATION "K" SERIES

III. PREPARING AN INDIVIDUAL CDA APPLICATION

A. Introduction

This section includes additional instructions to be used when applying for an individual Research Career Development Award (CDA), and includes a summary of current CDA mechanisms, a **substitute** Table of Contents (CDA Substitute Form Page 3), and guidelines for letters of reference. The instructions in this section of the PHS 398 application should be used along with the instructions in the preceding sections.

These instructions do not cover applications for program awards (K12 and K30), which provide support for institutional career development programs. Institutions planning such applications should contact the potential awarding component concerning eligibility, award criteria, and application procedures.

B. Individual Career Development Award Mechanism

	Summary of Research Career Development Award Mechanisms				
Program	Description	Sponsor (Mentor)	Reference Letters		
<u>K01</u>	Mentored Research Scientist Development Award	Yes	Yes		
<u>K02</u>	Independent Scientist Award	No	No		
<u>K05</u>	Senior Scientist Award	No	No		
<u>K07</u>	Academic Career Award	*	*		
<u>K08</u>	Mentored Clinical Scientist Development Award	Yes	Yes		
<u>K18</u>	Career Enhancement Award for Stem Cell Research	Yes	Yes		
<u>K22</u>	Career Transition Award (see specific IC)	*	Yes		
K23	K23 Mentored Patient-Oriented Research Career Development Award	Yes	Yes		
<u>K24</u>	Mid-Career Investigator Award in Patient Oriented Research	No	No		
<u>K25</u>	Mentored Quantitative Research Career Development Award	Yes	Yes		
<u>K26</u>	Midcareer Investigator Award in Mouse Pathobiology Research	No	No		
K99/R00	NIH Pathways to Independence (PI) Award (K99/R00)	Yes	Yes		

^{*}Varies with career status and source of award. Check the program announcement (PA).

Before applying for a CDA, applicants should carefully review the guidelines in the NIH program announcement or request for applications for the specific career award(s) of interest, noting especially the eligibility requirements, award provisions, requirements for a sponsor, and review criteria. NIH program announcements and requests for applications for career awards are issued periodically in the NIH Guide for Grants and Contracts. The PAs and other guidelines are available on the NIH website http://grants.nih.gov/training/careerdevelopmentawards.htm.

The eligibility criteria, support levels, and other important aspects of specific career awards, including availability, may vary among NIH Institutes or Centers and other PHS agencies. For this reason, it is strongly recommended that applicants contact the program director of the appropriate awarding component prior to the preparation of an application. For NIH career awards, the program contacts are listed in the individual program announcements for CDAs (see http://grants.nih.gov/training/ careerdevelopmentawards.htm). For non-NIH career awards, applicants should read the instructions of the appropriate funding announcement carefully or contact an official. (See the Agency Contact table.)

C. Letters of Reference

3 required

Letters are required for all new and revised/resubmission mentored CDA applications

(see table of <u>Career Development Award</u>
<u>Mechanisms</u>, Section B). **Applications with**fewer than three reference letters may be
delayed or may be returned without review.

These letters should be from individuals not directly involved in the application, but who are familiar with your qualifications, training, and interests. The sponsor/mentor of this application cannot be counted as a reference.

The letters are critically important and should address the candidate's competence and potential to develop into an independent biomedical or behavioral investigator. Only those individuals who can make the most meaningful comments about the candidate's

professional training and qualifications for a research career should be used as referees. Where possible, some referees who are not from the candidate's current department or organization, but are knowledgeable about their qualifications, should be selected.

Request reference letters only from individuals who will be able to return them to you in time for submission with the application.

Complete the upper section of the CDA
Reference Guidelines Format Page (MS
Word or PDF) including the application
submission deadline. Then send copies of the
CDA Reference Guidelines Format Page to
those who have agreed to serve as referees.
Referees should be provided with postage-paid
return envelopes addressed to the candidate
with the following words in the front bottom left
corner "DO NOT OPEN PHS USE ONLY."
Attach unopened envelopes to the Face
Page of the original application and submit
the entire package by the submission
deadline. Applicants reapplying must
include a new set of reference letters.

D. Basic Administrative Data

1. FORM PAGE 1 (MS WORD or PDF)

Item 2. Response to Specific Program Announcement (PA) or Request for Applications (RFA)

Check "Yes." Provide appropriate K Award PA or RFA number (<u>see previous section</u>) and title for the specific type of CDA requested.

Item 3. Principal Investigator/Program Director

Provide the name of the candidate. Indicate the doctoral degree(s) in 3b. If the candidate is not located at the applicant organization at the time the application is submitted, the mailing and email addresses (Item 3d) and telephone (Item 3g) should indicate where the applicant can be reached prior to the requested award date; items 3c, 3 e, and 3f should reflect the candidate's projected position at the applicant organization.

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Item 6. Dates of Proposed Period of Support

The period of support must be within specified limits for the type of CDA requested. If the application involves a change of applicant organization for an active CDA awardee, indicate the time remaining in the original award.

2. DESCRIPTION, PERFORMANCE SITES, KEY PERSONNEL, OTHER SIGNIFICANT CONTRIBUTORS, AND HUMAN EMBRYONIC STEM CELLS

FORM PAGE 2 (MS WORD OR PDF)

Description: Project Summary and Relevance

The first major component of the Description is a **Project Summary**.

Provide an abstract of the whole application (candidate, environment, and research). Include the candidate's immediate and long-term career goals, research career development plan, and a description of the research project.

The second component of the Description is **Relevance**. Using no more than two or three sentences, describe the relevance of this research to **public** health. In this section, be succinct and use plain language that can be understood by a general, lay audience.

Performance Site(s)

Indicate where the work described in the Research and Career Development Plans will be conducted. If there is more than one performance site, list all the sites, including Department of Veterans Affairs (V.A.) facilities and foreign sites, and provide an explanation on the Resources Format Page of the application. If the use of a performance site will involve research using human subjects, it is the responsibility of the applicant organization to assure that the performance site complies with the human subject protection regulations in 45 CFR Part 46 and other NIH human subject related policies described in the PHS 398 and GPS. For research involving vertebrate animals, the applicant organization must ensure that all performance sites hold OLAW-approved assurances.

Key Personnel and Other Significant Contributors

Name the candidate and, if applicable, the sponsor/mentor(s), co-sponsor(s), consultants, and contributors as Key Personnel or as Other Significant Contributors as described in Section I.C.2. Individuals identified as Key Personnel must devote measurable effort (in person months) to the proposed project whether or not salaries are requested. Individuals who have committed to contribute to the scientific development and execution of the project, but are not committing any specified measurable effort to the proposed project should be identified as Other Significant Contributors. Please note that for Mentored Career Development Awards, modified Other Support Pages must be submitted for sponsor(s) and co-sponsor(s) (see Section 7).

For CDAs with no sponsor, the candidate's department head or other senior staff member should be named who is responsible for ensuring that the candidate's time is protected for the expressed goals of the award.

Human Embryonic Stem Cells

If your research plan involves the use of human embryonic stem cells, read and follow the instructions in <u>Section I.C.2</u>.

3. TABLE OF CONTENTS

CDA SUBSTITUTE FORM PAGE 3 (MS WORD OR PDF)

Use the **substitute** Table of Contents for CDAs.

Citizenship

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All applicants must provide information regarding citizenship at the bottom of the substitute Table of Contents. For Career awards other than the K99 program, the Candidate must be a citizen or non-citizen national of the United States or its possessions and territories, or must have been lawfully admitted to the United States for permanent residence by the time of the award. The option of selecting "Non-citizen with temporary visa" is applicable to K99 candidates only.

4. DETAILED BUDGET FOR INITIAL BUDGET PERIOD

FORM PAGE 4 (MS WORD OR PDF)

Form Page 4 is not required at the time of application. Should Form Page 4 be requested prior to award, specific instructions will be provided.

If you are submitting an application to an agency other than NIH, be sure to read the instructions in the funding announcement to determine whether the application should be submitted in the modular format; or contact an appropriate official. (See PHS Agency Contact Table.)

5. BUDGET FOR ENTIRE PROPOSED PERIOD OF SUPPORT

FORM PAGE 5 (MS WORD OR PDF)

Do not fill in the budget table on Form Page 5. Provide only the total direct costs requested for each year and total direct costs for the entire proposed period of support. (Consult the relevant PA or RFA for guidelines on allowable costs and budget limitations.) Begin the budget justification in the space provided; use continuation pages as needed.

Budget Justification

List the name, role on project, and number of person months devoted to the project (indicate academic, calendar, and/or summer) for all project personnel (salaried or unsalaried) and provide a narrative justification for each person based on his/her role on the project and proposed level of effort.

Identify all consultants by name and organizational affiliation, and describe the services to be performed.

Provide a narrative justification for any major budget items, other than personnel, that are requested for the conduct of the project that would be considered unusual for the scope of research. No specific costs for items or categories should be shown.

6. BIOGRAPHICAL SKETCH FORMAT PAGE (MS WORD OR PDF)

A biographical sketch (*limited to four pages for each person*) is required for the candidate, sponsor(s), co-sponsor(s), and any other Key Personnel and Other Significant Contributors included on Form Page 2. Biographical sketches should follow the order listed on Form Page 2.

Sponsor(s), co-sponsor(s), and other Key Personnel should follow the Biographical Sketch Format Page.

Candidates should follow the instructions below.

Education

Provide the month and year for each degree conferred. For non-degree education, indicate the time period covered. List professional certifications received within the last 10 years.

Research and/or Professional Experience

Use the headings given below instead of the instructions on the Biographical Sketch Format Page. Identify each heading.

Employment

Start with the first position held following the baccalaureate and give a consecutive record to date. Indicate the department and organization, department head or supervisor, rank, tenured or non-tenured, status (full- or part-time), and inclusive dates. Where applicable, include information on military service, internships, residencies, research assistantships, fellowships, etc.

Honors

List academic and professional honors chronologically.

Professional Societies

Identify professional societies and related organizations in which membership has been held within the last 10 years, giving dates.

Publications

List all publications (chronologically), divided into the following groups:

Original research and theoretical treatises;

- Non-experimental articles, e.g., review of literature in field, book chapters, etc.;
- Books, pamphlets, etc.
- The list should include the title and complete references. For publicly available citations. URLs or PMC submission identification numbers may accompany the full reference. Note copies of publicly available publications are no longer accepted as appendix material. (See appendix instructions for revised guidance.) If the list of publications cannot be accommodated within the four-page limit, select the most pertinent publications. If a copy of a publication is being submitted with the application, indicate with an asterisk and footnote "copies sent." For competing continuation/renewal applications, also identify with a double asterisk and appropriate footnote all papers published during the concluding period of support.

7. OTHER SUPPORT FORMAT PAGE (MS WORD OR PDF)

For mentored CDAs (see Summary of Award Mechanisms table): Submit modified Other Support Page(s) for the sponsor(s) and cosponsor(s), but not for the candidate. Provide information for the following selected items on the sponsor's and co-sponsor's current and pending research support relevant to the candidate's research plan.

INSTRUCTIONS FOR SELECTED ITEMS

Project Number: If applicable, include a code or identifier for the project.

Source: Identify the agency, institute, foundation, or other organization that is providing the support.

Major Goals: Provide a brief statement of the overall objectives of the project, subproject, or subcontract.

Dates of Approved/Proposed Project: Indicate the inclusive dates of the project as approved/proposed. For example, in the case of

NIH support, provide the dates of the approved/proposed competitive segment.

Annual Direct Costs: In the case of an active project, provide the current year's direct cost budget. For a pending project, provide the proposed direct cost budget for the initial budget period.

Do not include information on overlap and level of effort.

For non-mentored CDAs: Do not submit Other Support Pages at the time of application unless specified to do so in the corresponding career award announcement (e.g., K24).

Updated information on all active support for the candidate, sponsor(s), co-sponsor(s), and Key Personnel may be requested by the awarding component prior to award.

8. RESOURCES

RESOURCES FORMAT PAGE (MS WORD OR PDF)

Provide a detailed description of the institutional resources available to you, following instructions on the Resources Format Page. The information provided is of major importance in establishing the feasibility of the goals of the career development plan.

E. Additional Information for Revised/Resubmission Applications

Use <u>CONTINUATION FORMAT PAGES</u>
(MS WORD OR PDF) to complete the sections below.

1. INTRODUCTION TO REVISED/RESUBMISSION APPLICATION (FOR REVISED/RESUBMISSION APPLICATIONS ONLY)

All revised/resubmission applications must include an Introduction to Revised/Resubmission Application, **not to exceed three pages.**

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List each area of concern noted in the Summary Statement for the previous application, and provide a detailed response to each concern. Summarize clearly the changes that have been made in the revised/resubmission application. Do not include an extensive description of each change in the introduction. In the body of the application, highlight paragraphs with significant changes by bracketing, indenting, or changing the typography. If the changes are so extensive as to include most of the text, this exception should be explained in the Introduction to the Revised/Resubmission Application. Do not underline or shade changes.

F. Career Development Plan

Use <u>CONTINUATION FORMAT PAGES</u>
(MS WORD OR PDF) to complete the sections below.

1. THE CANDIDATE

Candidate's Background

Use this section to provide any additional information not described in the Biographical Sketch Format Page such as research and/or clinical training experience.

Career Goals and Objectives: Scientific Biography

Describe your past scientific history, indicating how the award will fit into past and future research career development. If there are consistent themes or issues that have guided previous work, these should be made clear; if your work has changed direction, the reasons for the change should be indicated. It is important to justify the award and how it will enable you to develop or expand your research career.

Career Development/Training Activities During Award Period

Stress the new, enhanced research skills and knowledge you will acquire as a result of the proposed award. If you have considerable research experience in the same areas as the proposed research, reviewers may determine that the application lacks potential to enhance your research career. For mentored awards,

describe structured activities, such as course work or technique workshops, which are part of the developmental plan.

Training in the Responsible Conduct of Research

All CDA applications must describe a plan to acquire (or provide) training in the responsible conduct of research. There are no specific curriculum or format requirements for this instruction; however, conflict of interest, responsible authorship, policies for handling misconduct, policies regarding the use of human and animal subjects, data management, and data-sharing are areas that are strongly suggested for consideration. Applicants may wish to consult the NIH web site (http://www.nih.gov/sigs/bioethics/researchethic s.html) for additional guidance.

Briefly discuss each of the activities, except research, in which you expect to participate. Include a percentage of time involvement for each activity by year, and explain how the activity is interrelated with the proposed research and the career development plan.

2. STATEMENTS BY SPONSOR, CO-SPONSOR(S), CONSULTANT(S), AND CONTRIBUTOR(S)

This section is to be completed by the sponsor, co-sponsor(s), consultant(s), and contributor(s), as appropriate.

For mentored awards (see Summary of Career Development Award Mechanisms table), the sponsor must explain how the award will enhance the development of the candidate's research career. Provide in detail the plan for the candidate's training and research career development. This description must include not only research, but also other developmental activities, such as seminars, scientific meetings, training in the responsible conduct of research, and presentations. It should discuss expectations for publications over the entire period of the proposed project.

The sponsor should explain the nature and extent of supervision and commitment to the candidate's development that will occur during the award period and the source or anticipated support for the candidate's research project for

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each year of the award period. The sponsor should describe previous experience as a mentor, including type of mentoring (e.g., graduate students, career development awardees, postdoctoral students), number of persons mentored, and career outcomes.

The sponsor should describe the candidate's anticipated teaching load for the period of the award (number and types of courses or seminars), clinical responsibilities, committee and administrative assignments, and the portion of time available for research.

All mentored career development applications should identify all co-sponsors, consultants and collaborators involved with the proposed research and career development program. Briefly describe their roles and anticipated contributions that they will provide. A cosponsor must specifically address the nature of his/her role in the career development plan and how the responsibility for the candidate's development is shared with the sponsor. Describe respective areas of expertise and how they will be combined to enhance the candidate's development. Describe previous experience as a mentor. Also describe the nature of any resources committed to this CDA. Letters from the sponsor, co-sponsor(s), consultant(s), and contributor(s) documenting their role and willingness to participate in the project must be included in this section of the application. Do not place these letters in the Appendix.

Non-mentored career development award applications should also list any contributors or consultants. Briefly describe research materials, data, guidance, or advice they will provide.

Letters from consultant(s) and contributor(s), documenting their willingness to participate in the project and describing their roles, must be included in this section of the application as well.

3. Environment and Institutional Commitment to the Candidate

Description of Institutional Environment

The sponsoring institution must document a strong, well-established research program related to the candidate's area of interest, including the names of key faculty members

relevant to the candidate's proposed developmental plan. Referring to the resources description (Resources Format Page), indicate how the necessary facilities and other resources will be made available for career enhancement as well as the research proposed in this application. Describe opportunities for intellectual interactions with other investigators, including courses offered, journal clubs, seminars, and presentations.

Institutional Commitment to the Candidate's Research Career Development

Introduction

The institutional commitment should document the agreement of the institution to provide adequate time and support for the candidate to devote the proposed protected time to research and career development for the entire period of the proposed award. The institution should provide the equipment, facilities, and resources necessary for a structured career development experience. It is essential to document the institution's commitment to the retention, development, and advancement of the candidate during the period of the award.

Because of the diverse types of K awards, applicants should contact the appropriate awarding component program director listed in the specific PA or RFA to determine the level of commitment required for this application.

<u>Agreement</u>

The applicant organization must:

a. Agree to release the candidate from other duties and activities to devote the required percentage of time for development of a research career. For most K awards. commitment of at least 75 percent of time is required. Describe actions that will be taken to ensure this; e.g., reduction of the candidate's teaching load, committee and administrative assignments, and clinical or other professional activities for the current academic year. Describe the candidate's academic appointment, bearing in mind that it must be full-time, and that the appointment (including all rights and privileges pertaining to full faculty status if in an academic setting) and the continuation of salary are not contingent

upon the receipt of this award. Describe the proportion of time currently available for the candidate's research experience and what the candidate's institutional responsibilities will be if an award is made;

- Provide the candidate with appropriate
 office and laboratory space, equipment,
 and other resources and facilities (including
 access to clinical and/or other research
 populations) to carry out the proposed
 research plan; and
- Provide appropriate time and support for any proposed sponsor(s) and/or other staff consistent with the career development plan.

Signatures

The institutional commitment must be dated and signed by the person who is authorized to commit the institution to the agreements and assurances listed above. In most cases, this will be the dean or the chairman of the department. "Per" signatures are not acceptable.

The signature must appear over the signer's name and title at the end of the statement. If the candidate will be working away from the home institution, signatures from both the home and the host institution are required.

The sponsoring institution, through its signatures on the Face Page and in the institutional commitment section, certifies that all items outlined above will be provided and that the institution will abide by the applicable assurances and PHS policies.

4. RESEARCH PLAN

A Research Plan is required for all types of individual K awards. The Research Plan is the major component of the research career development plan. It is important to relate the research to the candidate's scientific career goals. Describe how the research, coupled with other developmental activities, will provide the experience, knowledge, and skills necessary to launch and conduct an independent research career, or enhance an established research career.

For most types of research, the plan should include: a specific hypothesis; a list of the specific aims and objectives that will be used to

examine the hypothesis; a description of the methods/approaches/techniques to be used in each aim; a discussion of possible problems and how they will be avoided; and, when appropriate, alternative approaches that might be tried if the initial approaches do not work.

The plan should be appropriate to develop skills needed by a researcher. Projects that lack a clearly stated aim or hypothesis, such as studies involving routine data gathering to see where leads might develop and other types of descriptive projects, usually do not receive favorable recommendations from peer reviewers. This also applies to projects that are overly ambitious and describe more work than can be done in the requested time, as well as more routine projects that might be done, in large part, by a skilled technician.

Although candidates for mentored K awards are expected to write the Research Plan, the sponsor should review a draft of the plan and discuss it in detail with the candidate. Review by other knowledgeable colleagues is also helpful.

Follow the <u>research plan format and</u> <u>instructions</u> described in Section I, Item 7 of the main instructions, except as noted below.

The headings for the first four sections of the Research Plan are:

A. Specific Aims

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- B. Background and Significance
- C. Preliminary Studies/Progress Report
- D. Research Design and Methods

Note: The total number of pages for Item 1 (The Candidate) and A-D of Item 4 (Research Plan) combined may not exceed 25 pages. In many cases, CDA applications will be shorter than the limit.

Although it is understood that CDA applications do not require the extensive detail usually incorporated into regular research applications, a fundamentally sound Research Plan and a reasonably detailed methods section should be provided.

In general, less detail will be expected in descriptions of research planned for the future

years of the proposed CDA, but there should be sufficient detail to enable the peer reviewers to determine that the plans for those years, including the methods to be used, are worthwhile and are likely to enhance development of the candidate.

E. Human Subjects Research

If your research plan involves <u>Human Subjects</u> <u>Research</u>, read and follow the full instructions in Section I. For new Clinical Research, place the Target/Planned Enrollment Table(s) in section e.

F. Vertebrate Animals

If your research plan involves <u>Vertebrate</u> <u>Animals</u>, follow the instructions in Section I.

G. Select Agent Research

If your research plan involves Select Agent Research, follow the instructions in Section I.C.7.g.

H. Literature Cited

Follow the instructions in Section I.

Multiple PI Leadership Plan

This section does not apply to Career Awards. Omit this section.

I. Consortium/Contractual Arrangements

Follow the instructions in Section I.

J. Resource Sharing

Follow the instructions in Section I.

Consultants

Omit this section.

5. APPENDIX

Follow the instructions in <u>Section 1</u>.

6. CHECKLIST

CHECKLIST FORM PAGE (MS WORD OR PDF)



Submit the Checklist Page with the application.

Type of Application

Check all that apply.

Inventions and Patents (Competing Continuation/Renewal Applications Only)

If no inventions were conceived or reduced to practice during the course of work under this project, check "No." The remaining parts of the item are then not applicable.

If any inventions were conceived or reduced to practice during the previous period of support, check "Yes." Also indicate whether this information has been reported previously to the PHS or to the applicant organization official responsible for patent matters.

Note: NIH recipient organizations must promptly report inventions to the Extramural Inventions and Technology Resources Branch of the Office of Policy for Extramural Research Administration, OER, NIH, Bethesda, MD 20892-2750, (301) 435-1986. Invention reporting compliance according to regulations at 37 CFR 401.14 is described at http://www.iedison.gov. The grantee is encouraged to submit reports electronically using Interagency Edison (http://www.iedison.gov). See also "Inventions and Patents" in the Policies, Assurances and Definitions and Other Information.

Program Income

If no program income is anticipated during the period(s) for which grant support is requested, so state.

If program income is anticipated, use the format provided. If the application is funded, the Notice of Grant Award will provide specific instructions regarding the use of such income.

Assurances/Certifications

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Each application to the PHS requires that the policies, assurances, and certifications listed on the Checklist be verified by the signature of the

official signing for the applicant organization on the Face Page of the application.

Facilities and Administrative (F&A) Costs

These costs will be reimbursed at 8 percent of modified total direct costs.

Institutional Ruth L. Kirschstein National Research Service Award (NRSA) Application

IV. INSTRUCTIONS FOR PREPARING AN NRSA APPLICATION

Sequential Guide for Preparing an Institutional Kirschstein-NRSA Application			
(Requires use of both the General and Kirschstein-NRSA Instructions.)			
Web Document Links	Page References		
Form Page 1			
Item 1. Specific PHS 398 Instructions	PHS 398-20		
Item 2. Kirschstein-NRSA Instructions and	NRSA-62		
Specific PHS 398 Instructions	PHS-20		
Item 3. Specific PHS 398 Instructions	PHS 398-21		
Item 4. Kirschstein-NRSA Instructions	NRSA-62		
Item 5. Kirschstein-NRSA Instructions	NRSA-62		
Item 6. Kirschstein-NRSA Instructions and	NRSA-63		
Specific PHS 398 Instructions	PHS 398-23		
Item 7. Specific PHS 398 Instructions	PHS 398-24		
Form Pages 2-3: Kirschstein-NRSA Instructions (Form Page 2) and (Form Page 3)	NRSA-63		
Form Page 4: Kirschstein-NRSA Instructions and Stipends	NRSA-64		
Form Page 5: <u>Kirschstein-NRSA Instructions</u>	NRSA-64		
Biographical Sketch Format Page: Kirschstein-NRSA Instructions	NRSA-65		
Resources Format Page: Kirschstein-NRSA Instructions	NRSA-65		
Research Training Program Plan: Kirschstein-NRSA Instructions	NRSA-65		

A. Introduction

This section includes instructions to be used when applying for a competing (new, competing continuation/renewal, and supplemental/revision) PHS Institutional Ruth L. Kirschstein National Research Service Award (Kirschstein-NRSA), substitute form pages for the Table of Contents and both budget pages, and instructions for the Research Training Program Plan. Begin by reading the General Instructions in Section I-B, and then follow both sets of instructions using the Sequential Guide for Preparing an Institutional Kirschstein-NRSA Application. (See table on previous page.)

Prior to preparing an application, consult with the appropriate PHS awarding component. Also review the current T32, T34 or T35 Kirschstein-NRSA Program Announcement (PA) available at (http://grants.nih.gov/training/nrsa.htm). Note especially the eligibility requirements, submission dates, award provisions, payback provisions, and review criteria. PAs are also issued periodically by the individual NIH Institutes or Centers in the NIH Guide for Grants and Contracts. This information is available from the appropriate PHS agency, from grantee offices of sponsored programs, or equivalent offices.

Please note that the training grant director must explain the terms of the payback service requirement to all prospective postdoctoral training candidates. A complete description of the service payback obligation is available in the NRSA Program Announcement or the NIH Grants Policy Statement.

B. Specific Instructions

1. FACE PAGE (MS WORD OR PDF)

Item 2. Response to Specific Request for Applications (RFA) or Program Announcement (PA)

Indicate "Institutional Ruth L. Kirschstein NRSA" and the specific PHS awarding component and/or specialized program area, if applicable.

Item 4. Human Subjects Research

Check "Yes" if training plans include involvement of trainees in projects that include human subjects. If the applicant organization has an approved Federal Wide Assurance (FWA) on file with the Office for Human Research Protections (OHRP), insert the FWA in Item 4b. If an award is made, human subjects may not be involved and trainees may not participate in human subjects related research until a certification of the date of IRB approval or a designation of exemption has been submitted to and accepted by the PHS agency. and NIH requirements for human subjects research have been addressed (see instructions in Section I, Human Subjects Research, and the GPS).

In many instances, trainees supported by institutional training grants will be participating in research supported by research project grants for which the IRB review of human subjects is already complete or an exemption is already designated. This review or exemption designation is sufficient, provided the IRB determines that the research would not be substantially modified by the participation of a trainee. The appropriate grants must be identified along with their IRB approval dates or exemption designation in Section E of the Research Training Plan.

These policies apply to all Performance Sites.

Item 5. Vertebrate Animals

Check "Yes" if training plans include trainee participation in projects involving vertebrate animals. If the applicant organization has an approved Animal Welfare Assurance on file with the Office of Laboratory Animal Welfare (OLAW), insert the assurance number in Item 5b. If at the time of application, plans for the involvement of vertebrate animals are so indefinite that Institutional Animal Care and Use Committee (IACUC) review and approval are not feasible, insert "Indefinite" at Item 5a.

In many instances, trainees supported by institutional training grants will be participating in research supported by research project grants for which the IACUC review is already complete. This review is sufficient, provided that the research would not be substantially modified by the participation of a trainee. The

appropriate grants must be identified along with their IACUC approval dates in Section F of the Research Training Plan.

The institution must ensure that trainees are enrolled in the institution's animal welfare training and occupational health and safety programs for personnel who have contact with animals, as appropriate. It is also the institution's responsibility to ensure that trainees are properly supervised when working with live vertebrate animals.

If an award is made, vertebrate animals may not be used and trainees may not participate in vertebrate animal related research until a verification of the date of IACUC approval has been submitted to the PHS awarding component.

These policies apply to all Performance Sites.

Item 6. Dates of Entire Proposed Period of Support

The usual starting date for an institutional Kirschstein-NRSA is July 1, but there are other possible starting dates. Consult the review and award schedule in Section I of the general instructions (Table 2. Submission, Review, and Award Cycles). Many PHS awarding components restrict submission and review dates to once a year. Applicants are strongly encouraged to contact appropriate awarding component staff before submitting an application.

2. DESCRIPTION, PERFORMANCE SITES, KEY PERSONNEL, OTHER SIGNIFICANT CONTRIBUTORS, AND HUMAN EMBRYONIC STEM CELLS

FORM PAGE 2 (MS WORD OR PDF)

Description: Project Summary and Relevance

The first and major component of the Description is a **Project Summary**. Summarize the objectives, rationale and design of the research training program. Provide information regarding the research areas and scientific disciplines encompassed by the program. Include a brief description of the level(s) and duration of the proposed training, the projected

number of participating trainees and their anticipated levels of experience.

The second component of the Description is **Relevance**. Using no more than two or three sentences, describe the relevance of this research to **public** health. In this section, be succinct and use plain language that can be understood by a general, lay audience.

Performance Sites. List all of the locations where training, program management, and the research experiences described in the Program Plan will be performed. If a performance site is participating in research using human subjects, it is the responsibility of the applicant organization to assure that the performance site complies with the human subject protection regulations in 45 CFR Part 46 and other NIH human subject related policies described in the PHS 398 and GPS. For research involving vertebrate animals, the applicant organization must ensure that all performance sites hold OLAW-approved assurances.

Key Personnel and Other Significant Contributors. The Program Director, training faculty and any other individuals whose contributions are critical to the development, management and execution of the Training Program in a substantive, measurable way (whether or not salaries are reimbursed) should be identified as Key Personnel. Since these efforts are not project related research endeavors, they should not be identified in Other Support information. The Other Significant Contributors section is not relevant for NRSA applications.

Human Embryonic Stem Cells. For each trainee utilizing human embryonic stem cells in a research project, list project title, mentor, and specific cell line(s) from the <u>registry</u>.

3. TABLE OF CONTENTS

KIRSCHSTEIN-NRSA SUBSTITUTE FORM PAGE 3 (MS WORD OR PDF)

Use the substitute Table of Contents for Kirschstein-NRSA.

4. DETAILED BUDGET FOR INITIAL BUDGET PERIOD

INSTITUTIONAL KIRSCHSTEIN-NRSA SUBSTITUTE FORM PAGE 4 (MS WORD OR PDF)

If you are requesting a budget of \$500,000 directs costs or more for any year, contact the awarding component to determine whether you must obtain prior approval before submitting the application. Some Institutes/Centers do not require prior approval. (See Policy on the Acceptance for Review of Unsolicited Applications That Request \$500,000 or More in Direct Costs.)

Use the Institutional Kirschstein-NRSA
Substitute Form Page 4 and Institutional
Kirschstein-NRSA Substitute Form Page 5 and
follow the instructions below. Refer to the
relevant PA or consult the PHS awarding
component for current allowable costs and
stipend levels. Provide information where
possible on the substitute Institutional
Kirschstein-NRSA Substitute Form Page 4, with
additional details starting in the budget
justification block on the substitute KirschsteinNRSA Substitute Form Page 5.

Stipends

Enter the number of trainees and total stipend amount for each trainee category as appropriate. Use the current Institutional Kirschstein-NRSA stipend schedule, (http://grants.nih.gov/training/nrsa.htm). If a category contains different stipend levels, e.g., for varying levels of postdoctoral experience and/or varying appointment periods, itemize. Enter the total stipends for all categories.

Tuition and Fees

Institutions are referred to the new policy for funding of tuition, fees, and health insurance, NOT-OD-06-093, dated August 18, 2006. Note, health insurance is no longer included as part of this budget category. See the Training Related Expenses category below.

Explain in detail the composition of tuition and fees and itemize them individually. If tuition varies, (e.g., in-state, out-of-state, student status) identify these separately. Tuition at the postdoctoral level is limited to that required for specified courses. Tuition and fees may be requested only to the extent that the same

resident or nonresident tuition and fees are charged to regular non-Federally supported students and postdoctorate fellows. Grantees should request full needs. A formula will be applied by the NIH awarding component at the time an award is calculated.

Trainee Travel

State the purpose of any travel, giving the number of trips involved, the destinations, and the number of individuals for whom funds are requested, bearing in mind that PHS policy requires coach class air travel be used. Justify foreign travel in detail, describing its importance to the training experience.

Training Related Expenses (including Health Insurance)

Funds to defray other costs of training, such as health insurance (self-only or family), staff salaries, consultant costs, equipment, research supplies, staff travel, etc., are requested as a lump sum based on the amounts for each predoctoral and postdoctoral trainee specified in the relevant FOA. Enter the number of positions requested (predoctoral, postdoctoral, short-term), multiply each by the relevant Training Related Expenses level in the NRSA Stipends Notice, and enter the sum under Dollar Total.

Health insurance (self-only or family, as applicable) is an allowable expense that may be charged to the Training Related Expenses budget category but only to the extent that the same health insurance fees are charged to regular non-Federally-supported students and postdoctorate fellows. See NOT-OD-06-093 for details. No further itemization or explanation of the Training Related Expenses budget category is required. The awarding Institute/Center will apply the Training Related Expenses level established in the NRSA Stipends Notice for the relevant fiscal year at the time of award.

5. BUDGET FOR ENTIRE PROPOSED PERIOD OF SUPPORT

INSTITUTIONAL KIRSCHSTEIN-NRSA FORM PAGE 5 (MS WORD OR PDF)

Use the Institutional Kirschstein-NRSA Substitute Form Page 5.

6. BIOGRAPHICAL SKETCH

BIOGRAPHICAL SKETCH FORMAT PAGE (MS WORD OR PDF)

There is no Form Page for biographical sketches. Follow the format on the Biographical Sketch Format Page. Include biographical sketches, not to exceed four pages each, for all professional personnel contributing to the training program. Assemble sketches with the program director first and others following in alphabetical order.

7. RESOURCES

RESOURCES FORMAT PAGE (MS WORD OR PDF)

Follow the format and instructions on the Resources Format Page. Describe the facilities and resources that will be used in the proposed training program. Indicate in what ways the applicant organization will support the program (e.g., supplementation of stipends).

8. RESEARCH TRAINING PROGRAM PLAN

Introduction (Revised/Resubmission or Supplemental/Revision Applications Only)

If you are preparing a **revised/resubmission** or **supplemental/revision** application, complete the Introduction section first (see instructions provided earlier in Section I,

<u>Revised/Resubmission Applications or Competing Supplemental/Revision</u>).

Follow the outline below for all applications to describe the Research Training Program Plan. Do not exceed 25 pages of narrative for sections A-D. The information provided in tables (see below) will not be counted toward the page limitation; however, these tables should be numbered consecutively and each given a title. Number the table pages at the bottom of the page according to their placement within the narrative or contiguously at the end of the narrative to maintain the continuity of the application.

Before completing the training plan, contact the appropriate PHS awarding component, which may have further advice or suggestions for organizing the relevant data into particular formats.

A. Background

Give the rationale for the proposed research training program, relevant background history, and the need for the research training proposed. Indicate how the proposed program relates to current training activities at the applicant institution.

Summarize the research training activities of the major participating unit(s) and department(s) represented in the proposed program. In a table (Table 1), provide the current number of faculty members in each unit and department, as well as the total numbers of current predoctoral students and postdoctoral trainees.

In a table (Table 2), list all current and pending training support available to the participating faculty and department(s). For each grant, include status (active or pending), funding source, complete identifying number, dates of the entire project period, annual direct costs, name of the program director, title of the training program, and number of training positions (predoctoral and postdoctoral). List participating faculty members who are also named in this application, and indicate their percent effort in those programs.

B. Program Plan

 Program Administration. Describe the program director's qualifications for providing leadership of the program, including relevant scientific background, current research areas, and experience in research training. Indicate the program director's percent effort in the proposed program.

Describe the administrative structure of the program and the distribution of responsibilities within it, including the means by which the program director will obtain continuing advice with respect to the operation of the program.

2. **Program Faculty**. List each training faculty member, his/her primary departmental

affiliation, and role in the proposed program. Describe each faculty member's research that is relevant to this program and indicate how trainees will participate in this research. Describe the extent to which participating faculty members cooperated, interacted, and collaborated in the past, including joint publications and joint sponsorship of student research.

In a table (Table 3), for each participating faculty member, list active and pending research grant and contract support from all sources (including Federal, non-Federal, and institutional research grant and contract support) that will provide the context for research training experiences. If none, state "None." Include the source of support, grant number and title, dates of the entire project period, and annual direct costs. If part of a larger project, identify the principal investigator and provide the above data for both the parent grant and the subproject.

In a table (Table 4), for each participating faculty member, list all past and current students for whom the faculty member was/is the thesis advisor or sponsor (past 10 years only). For each student indicate: 1) whether predoctoral or postdoctoral; 2) the training period; 3) previous institution, degree, and year awarded prior to entry into training; 4) title of the research project; and 5) for past students, their current positions, and for current students, their source of support.

For **new applications**, list representative recent publications of some of the above students or postdoctorates.

In competing continuation/renewal applications, denote trainees who were or are supported by this training grant with an asterisk. Individuals who were trained at sites other than the applicant organization may be included but should be specifically identified. Publications of trainees should be listed in the Progress Report of this application (see instructions for Progress Report below).

 Proposed Training. Describe the proposed training program. State the training level and number of trainees. For postdoctoral trainees, indicate the proposed distribution by degree (e.g., M.D., Ph.D.). Describe course work and research opportunities, the extent to which trainees will participate directly in research, and the duration of training, i.e., usual period of time required to complete the training offered.

Indicate how the individual disciplinary and/or departmental components of the program are integrated and coordinated and how they will relate to an individual trainee's experience.

For training programs that emphasize research training for clinicians, describe the interactions with basic science departments and scientists. Include plans for ensuring that the training of these individuals will provide a substantive foundation for a competitive research career. Generally, a minimum of 2 years of research training is required for all postdoctoral trainees with health professional degrees. Describe fully any trainee's access to and responsibility for patients, including time commitment.

Provide representative examples of programs for individual trainees. Include curricula, degree requirements, didactic courses, laboratory experiences, qualifying examinations, and other training activities, such as seminars, journal clubs, etc.

Describe how the preceptor and research problems are chosen, how each trainee's program will be guided, and how the trainee's performance will be monitored and evaluated.

- 4. **Training Program Evaluation.** Program directors are encouraged to develop methods for ongoing evaluation of the quality of the training program. Describe any plans for such an evaluation, e.g., plans to obtain feedback from current and former trainees to help identify weaknesses in the training program and to provide suggestions for program improvements.
- Trainee Candidates. Describe recruitment plans, including the sources and availability of trainees; the qualifications of prospective trainees; and

the criteria and procedures by which trainees will be selected.

Create a table(s) (Table 5a, b, etc.) for each participating department/unit for each of the past 5 years. Include the following information: 1) number of individuals who have formally applied for training; 2) number offered admission; 3) number who entered training; 4) number who completed or are currently in training; and 5) number who left the program.

Indicate whether these individuals were applying for predoctoral or postdoctoral training; for postdoctoral fellows, identify their degrees (e.g., M.D., Ph.D.).

Prospective predoctoral trainees. In a table (Table 6), anonymously indicate the credentials and application outcomes of the predoctoral applicant pool for the most recent year for each participating department and unit. For each applicant (identified with a number in sequence, rather than by name, to safeguard privacy) indicate the previous institution attended, Graduate Record Examination scores, and grade point average. Indicate whether applicants were or were not offered admission, which applicants matriculated, and whether applicants were U.S. citizens or had permanent resident status.

Prospective postdoctoral trainees. In a table (Table 7), present the qualifications of prospective postdoctoral trainees in the most recent applicant pool. Provide the degree(s) and year awarded, previous institution, thesis research topic, preceptor, citizenship or permanent resident status, and residency training (when appropriate) for each prospective applicant to the program. Indicate whether applicants were or were not offered admission and which applicants entered the program.

C. Minority Recruitment and Retention Plan

The NIH promotes broad and systematic efforts to recruit individuals from minority groups currently underrepresented in biomedical and behavioral research. The accomplishments of Kirschstein-NRSA programs, with respect to recruiting and retaining individuals from underrepresented groups, will ensure that

minority scientists are progressively better represented in the national research effort.

Applications without a description of minority recruitment efforts will be considered incomplete and will be returned to the applicant without peer review.

Describe the program's previous efforts and plans to recruit and train graduate students and/or postdoctoral trainees from ethnic or racial groups underrepresented in biomedical and behavioral research. Organize the information as follows:

<u>History</u>. Describe efforts to recruit minority students into the existing training program. In **competing continuation/renewal applications**, also describe past efforts to recruit and retain underrepresented minority students into Kirschstein-NRSA training positions.

Achievements. In a table (Table 8),

summarize recruitment data for the program and/or each of the participating departments or units in each of the past 3 years. Provide the number of minority individuals who applied; number offered admission; and number who entered the program. For those who entered the program, indicate current status (i.e., in training, graduated or completed training) and all sources of support. For those who have left the program or completed training, include information about their subsequent career development or employment. In competing continuation/renewal applications, indicate which individuals were supported by the Kirschstein-NRSA grant.

Proposed plans. Describe steps to be taken during the proposed award period regarding the identification, recruitment, and retention of graduate students and postdoctorates from underrepresented groups. Consider the success and/or failures of recruitment strategies used in the past. In particular, describe the specific efforts to be undertaken by the training program and how these might relate to the recruitment efforts of the medical school, graduate school, and/or the university at large. In most cases, institutional efforts alone will not satisfy the requirement to recruit individuals from underrepresented groups.

D. Plan for Instruction in the Responsible Conduct of Research

Applications lacking a plan for instruction in the responsible conduct of research will be considered incomplete and will be returned to the applicant without review.

Every Kirschstein-NRSA trainee **must** receive instruction in the responsible conduct of research. Describe a plan to provide trainees with formal and informal instruction on scientific integrity and ethical principles in research. The plan must address the rationale for the instruction, the format and subject matter, the degree of faculty participation, trainee attendance, plans to assess the quality and the frequency of instruction. For **competing continuation/renewal applications**, describe the type of instruction provided in the current project period, the degree of student participation, the results of any assessments and other relevant information.

There are no specific curriculum or format requirements for this instruction; however, conflict of interest, responsible authorship, policies for handling misconduct, policies regarding the use of human and animal subjects, data management, and data-sharing are areas that are strongly suggested for consideration. Applicants may wish to consult the NIH web site (http://www.nih.gov/sigs/bioethics/researchethics.html) for additional guidance.

E. Progress Report (Competing Continuation/Renewal Applications Only)

State the period covered. Briefly describe the accomplishments of the training program. In a table (Table 9), for each year of the grant since the last competing application, provide the following: 1) total number of positions awarded in each training category; 2) number of predoctoral trainees appointed and months of support committed; and 3) number of postdoctoral trainees appointed, with what degrees, at what levels, and for how many months. If any trainee positions were not filled, explain the reason.

In a table (Table 10), list all trainees who were, or are, supported by this training grant (past 10 years only, if applicable). For each student

provide: 1) name; 2) year of entry into the training program; 3) prior institution and degree at entry; 4) source of support during each year of training, e.g., this training grant, another training grant (specify), research grant, university fellowship, individual fellowship (specify), etc.; 5) name of research mentor; 6) research topic; and 7) for trainees who have completed the program, their current positions and institutional affiliations.

In the narrative section of the Progress Report, list each trainee supported during the period covered and indicate in parentheses the preceptor/mentor. Briefly summarize the research conducted by each trainee and list all publications (full citation) that resulted from the work done during training. If any postdoctoral trainee with a health professional degree who was appointed to the grant during the most recent award period received less than 2 years of research training, explain why. Where possible for past trainees, describe the extent of their current involvement in research, including research grant support and representative recent publications. This information will be used to track the pattern of support of trainees and the subsequent research career development of former trainees.

Describe any specific effects of this training program on curriculum and/or research directions. Describe how the funds provided under Training Related Expenses were used to benefit the program.

F. Human Subjects

As indicated earlier in these instructions (Item 4 on the Face Page), where appropriate, include a list of already reviewed research project grants (grant number, principal investigator, project title) and their IRB approval dates or exemption designations.

G. Vertebrate Animals

As indicated earlier in these instructions (Item 5 on the Face Page), where appropriate, include a list of already reviewed research project grants (grant number, principal investigator, project title) and their IACUC approval dates.

H. Select Agent Research

If participating faculty proposed in the training program conduct research involving select agents in which trainees *may* participate, address the requirements of Select Agent Research described in Section I.C.7.G.

I. Multiple PI Leadership Plan

Unless otherwise noted in a specific funding opportunity announcement, multiple PIs do not currently apply to institutional training grants. Omit this section.

J. Consortium/Contractual Arrangements

Describe any programmatic, fiscal, or administrative arrangements between the applicant organization and other participating organizations. See <u>Section 1.C.7.j</u> for additional guidance.

Resource Sharing

Not applicable to Institutional Training Grants. Omit this section.

9. APPENDIX

Appendix material is generally not needed with training grant applications. Oversized documents, brochures, and catalogues may be exceptions. Five collated sets should be submitted.

10. CHECKLIST

CHECKLIST FORM PAGE (MS WORD OR PDF)

Inventions and Patents

Not applicable.

Facilities and Administrative Costs

Facilities and Administrative (F&A) costs under Institutional Kirschstein-NRSAs, other than those issued to state or local government agencies, will be awarded at 8 percent of total allowable direct costs (exclusive of tuition and related fees). Equipment and consortium costs are also excluded from the F&A costs on those training grants, where Training Related Expenses are not calculated and awarded on a lump-sum basis, such as the Minority Access to Research Careers Program (MARC) or Career Opportunities in Research (COR) Undergraduate Research Training Program. State and local government agencies will receive the full F&A cost rate.

11. KEY PERSONNEL REPORT

Not applicable.